

Tasmanian Year Book



1974

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TASMANIAN YEAR BOOK

1974



Government House, Queen's Domain, Hobart.

AUSTRALIAN BUREAU OF STATISTICS
TASMANIAN OFFICE



TASMANIAN

YEAR BOOK

No. 8: 1974

R. LAKIN
DEPUTY COMMONWEALTH STATISTICIAN
AND GOVERNMENT STATISTICIAN OF TASMANIA

The death on 14 December 1973 of Mr John Michael Holliday, Assistant Statistician in the Tasmanian office of the Australian Bureau of Statistics, is recorded with deep regret. Mr Holliday spent the whole of his working life (40 years) as a statistician in the Bureau and made a substantial contribution to the development of statistics in this State. One of his major responsibilities in more recent years was the overall direction of all publications issued by the Tasmanian office; one of the last tasks he carried out was to oversee the preparation of the greater part of this issue of the Year Book.

PREFACE

This is the eighth issue of the Tasmanian Year Book. The Year Book is designed to present a comprehensive statistical and descriptive account of the physical environment and of the social, demographic, economic, etc. structure of the State with particular emphasis on change and development in more recent years. Special articles in this edition of the Year Book include: a history of colonial developments during the government of Francis Smith; a description of Tasmania's reptiles and amphibians; an account of the Tasmanian sheep industry; descriptions of Tioxide Australia Pty Ltd and the Cascade group of companies; an outline of Tasmania's interstate transport problems; and a history of the National Trust in Tasmania.

An index of special articles, which have appeared in the past five (i.e. 1969 and later) editions of the Year Book, precedes the general index. (For an index of all special articles see the 1973 *Year Book*.)

As far as possible the latest available statistics at the time of printing and significant developments which have occurred in 1973 have been embodied in each chapter. However, where this has not been practicable, brief details have been included in Appendix A, Later Information.

More detailed statistics relating to matter treated generally in the Year Book are available in the various statistical bulletins and other publications issued by the Bureau. Information about these publications is provided in the section 'Publication of Tasmanian Statistics'.

Change of Office Title: From 2 January 1974 the title of the Commonwealth Bureau of Census and Statistics became Australian Bureau of Statistics. However, due to the recent nature of the name change the old title, Commonwealth Bureau of Census and Statistics, still appears in various parts of the text in this edition.

Metrication: The metric system of measurement has been used exclusively in the first two chapters of this Year Book. In some other chapters, dealing with industries which had adopted the metric method of measurement at the time of compiling, metric units are also used. A short table, showing the more common metric units and conversion factors used in this edition, appears at the beginning of Chapter 2. In the next edition of the Year Book (1975) all statistical information will be in metric units.

I gratefully acknowledge the valuable assistance given by officers of the various Commonwealth and State Government Departments and by others who have contributed information, often at considerable trouble, and by those who have provided photographs. Especially I should express my appreciation to the Government Printer and his staff for their enthusiasm and co-operation in printing this volume.

The Year Book has been compiled under the direction of the late Mr J. M. Holliday, B. Com.; Mr J. C. Pollard, B. Ec., was responsible for the editing of this issue.

R. LAKIN

*Deputy Commonwealth Statistician
and*

Government Statistician of Tasmania

Australian Bureau of Statistics,
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SYMBOLS AND USAGE

The following symbols, where used, mean:

- n.a. Not available.
- n.e.i. Not elsewhere included.
- n.p. Not available for separate publication; included in totals where applicable.
- p Preliminary—figure or series subject to revision.
- r Revision to figure or series published in previous issue.
- .. Nil or less than half the unit shown, or not applicable.
- Break in continuity of the series. (Where drawn across a column between two consecutive figures.)

A blank space indicates the figure is not yet available.

Values are shown in Australian dollars (\$) and/or cents (c).

Any discrepancies between totals and sums of components in tables are due to rounding.

LOCAL NAMES OF CERTAIN REGIONS

Tasmanians describe certain regions in a manner confusing to strangers; nevertheless this book employs local usage in most contexts. The chief peculiarities are:

North-West Coast: The *north* coast from approximately Port Sorell west to Cape Grim is called the *north-west coast*.

North-East Coast: The *north* coast from approximately Low Head east to Cape Portland is called the *north-east coast*. With most of the north coast referred to as either 'north-west' or 'north-east', the term 'north' is rarely applied to this coastal region.

West Coast: The Tasmanian west coast may refer only to the mining settlements of Queenstown, Rosebery, etc. In other contexts, the user may be thinking of inland mountains and rainforests, rather than of a coastline.

Midlands: The true midlands are probably the Central Plateau but the Tasmanian term means the rural area east of the Plateau and lying along the axis of the Hobart-Launceston road.

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Chapter 1

HISTORY AND CHRONOLOGY

DISCOVERY

The Period of Dutch Exploration

In the authors of antiquity, references are found to a land called 'Terra Australis' but it is the Dutch who are credited with the discovery of both mainland Australia and Tasmania. The Dutch, with their trading posts in Java, represented the closest extension of European sea power near the north of the unknown continent and its discovery, either by accident or design, became inevitable.

In 1606, Captain William Jansz in the *Duyfken* was sent from Java to explore the islands of New Guinea and, crossing Torres Straits, unawares coasted along the west of Cape York Peninsula; this was the first of a series of voyages by Dutch captains who, in the next 30 years, acquired some knowledge of the western shores of the unknown land. Not all voyages were undertaken with the aim of exploration—Dirk Hartog's long journey along the western shore of Australia in 1616 resulted from his sailing too far east on the route from Cape of Good Hope to Java. Some later captains on the same route even regarded the western Australian coast as a suitable landfall before turning north for Java—a commentary on the difficulty of navigation when longitude had to be established by dead reckoning.

In 1642, the Dutch East India Company despatched from Java an expedition of two vessels, the *Heemskirk* and *Zeehan*, under Captain Abel Tasman, with instructions to investigate the extent of the unknown land thought to exist between New Guinea and the western coast of Australia. One immediate aim of the Governor General, Anthony Van Diemen, was to find a southern route from Java to Chile so that ships of the company could either trade or plunder along the Pacific coast of South America; a question to be resolved was whether any land mass extending far south blocked such a route.

The original plan was to sail west to Mauritius, to run down to 52° or 54° South latitude and then to proceed east; assuming no land was discovered, it was then intended to turn north in either the longitude of eastern New Guinea or possibly of the Solomons. If Tasman had followed this plan in every detail he might have discovered the east coast of Australia, anticipating Cook's work by more than a century. As it turned out, the extreme southern latitudes were too hostile and accordingly Tasman was sailing east in latitude 42° South when he sighted the mountainous west coast of Tasmania on 24 November 1642.

The Dutch navigator skirted the south coast and made a landing on the east coast for water in Blackman Bay (from an anchorage south of Marion Bay). He then sailed north to St Patricks Head, crossed the Tasman sea and discovered New Zealand, returning to Java by a route to the north of New Guinea. Tasman had thus performed the feat of circumnavigating Australia in a single voyage without once sighting the Australian continent.

In honour of the Governor General of the Indies, he named the first discovery Van Diemen's Land, imagining it to be the most southern extension of the Australian continent, an illusion that was only completely dispelled by Bass and Flinders when they circumnavigated the island in 1798. The Dutch did not follow up the discoveries of Tasman or their other explorers because they were interested in establishing trading posts only among peoples with a higher degree of civilisation than the natives of Tasmania or Australia appeared to possess. (Tasman's crew saw no natives in Tasmania but inferred their existence from sounds, cuts in trees and the smoke of fires.)

The Period of British and French Exploration

One hundred and thirty years passed before Tasmania was visited again, this time by the French navigator Marion du Fresne in 1772; he virtually repeated Tasman's original landfall, skirted the south coast and came to anchor in the bay that bears his name (Marion). His visit is memorable for the first contact between Europeans and Tasmanians and for the slaying of the first native by gunfire. Du Fresne himself was killed by Maoris in New Zealand on the same voyage.

A year later, Captain Tobias Furneaux in the *Adventure* became separated from Captain Cook in the *Resolution* on the route to New Zealand and made for Tasmania to obtain water. He eventually anchored off Bruny Island in Adventure Bay but mistakenly believed himself to be in the area of Tasman's original landing which was at least 70 kilometres to the north-east. From this original error sprang a confusion in nomenclature which persists to this day (e.g. Frederick Henry Bay, first named in Tasman's record, appears on maps in an area that Tasman did not even see). Furneaux then sought to investigate the possibility of a strait separating Tasmania from the continent recently explored by Cook, but shoals in the islands bearing his name (Furneaux Group) caused him to abandon the project and make for New Zealand.

In 1777, Cook, on his third voyage, used the Adventure Bay anchorage without detecting Furneaux's navigational errors.

The settlement at Port Jackson in N.S.W. in 1788 put Tasmania on a major sailing route, the First Fleet passing south of the island on its way. To have sailed north of the island would have invited shipwreck on the Australian 'mainland' of which Tasmania was then believed to be part. In the same year, Captain William Bligh put into Adventure Bay with the *Bounty* on his way to Tahiti and to the famous mutiny; he had been on Bruny Island before, as Cook's sailing master.

Captain Cox of the *Mercury* anchored in the bay known as Cox Bight in 1789, charted some of the south coast and explored the strait between Maria Island and the east coast.

The next visitor (1792) was Admiral Bruny D'Entrecasteaux commanding *Recherche* and *Esperance* and searching for La Perouse who had not been heard of since 1788 when he sailed from Botany Bay. The Admiral sailed north hoping to anchor in Adventure Bay, but a navigational error put his ships too far west with the happy result that he discovered the magnificent channel separating Bruny Island from the Tasmanian mainland and was the first to sail up the Derwent River. Leaving Tasmania, the expedition sailed as far west as Cape Leeuwin in western Australia when it became imperative to take on water. It is an indication of the lack of knowledge then available that D'Entrecasteaux had to return to Adventure Bay to fill his casks. In the same year, Bligh put into Adventure Bay on his way to obtain breadfruit trees in the Pacific for transplanting in the West Indies.

The year 1794 was notable for the visit of Commodore John Hayes who had sailed from India with the *Duke of Clarence* and the *Duchess*; he explored the Derwent as far as Mt Direction and named Risdon Cove, later to be the site of the first settlement.

Tasmania an Island

Two voyages now followed which established that Tasmania was an island. Surgeon George Bass in a whaleboat left Port Jackson in 1797, rounded Wilsons Promontory and discovered Western Port. The nature of tides and swells encountered told Bass that here was no bay but rather a strait of considerable magnitude. In 1798, Bass and Flinders were given the sloop *Norfolk* to decide the question for all time and they circumnavigated the island, commencing on a westerly course along the north coast where they discovered the Tamar Estuary.

Fear of the French

In the original annexation of Australian territory by Cook in 1770, Tasmania was excluded since the southern limit was proclaimed as 38° South latitude. Formal possession of Tasmania was taken by Governor Phillip on 26 January 1788, when he read his commission to the people of the First Fleet at Sydney Cove. Now that it was established that Tasmania was an island, the authorities both in London and Sydney felt that some steps should be taken to block the French from making any claims to possession. The urgency of doing this was underlined by the arrival in D'Entrecasteaux Channel of Admiral Baudin with the *Geographe* and *Naturaliste* in 1802. The expedition's navigator, Freycinet, charted Tasman and Forestier Peninsulas and correctly identified the Frederick Henry Bay of the Dutch era. The expedition then called at Port Jackson before sailing south into Bass Strait where it was intercepted at King Island by Lieutenant Robbins in the *Cumberland*. Announcing his intention boldly to the French Admiral, the Lieutenant disembarked his small company and formally annexed the island in the name of King George III. Governor King at Port Jackson who gave Robbins his instructions was not satisfied that merely formal acts of annexation would block the French indefinitely and decided that permanent settlements were required if British sovereignty were to be retained. To this decision can be attributed the settlement at Risdon (1803) and the Hobart and Port Dalrymple settlements of 1804.

Geography of the Original Landing

The State map published by the Tasmanian Lands and Surveys Department (1:250,000) makes easy the recognition of Tasman's landings on the east coast. His anchorage was near Visscher Island while the first landing was made by longboats which passed through the narrows into Blackman Bay. The second landing occurred in the south-east of North Bay where a lagoon proved too brackish for filling water casks.

The last landing was made near Tasman Bay where the navigator had hoped to take formal possession of the new land. The surf being too rough to get the longboat ashore, the carpenter swam through the waves, planted the Dutch flag and then fought his way back to the longboat.

SETTLEMENT

The First Settlement at Risdon (1803)

It will be observed that the original explorers of the island (including the French) had very largely concentrated their attention on the south-east and, in particular, on the sea approaches to the Derwent. Faced with the necessity for establishing a settlement to assert British sovereignty, Governor King had a number of possible sites to consider, including King Island, Port Phillip and Port Dalrymple (the Tamar Estuary). His eventual choice was the area of the Derwent and he reported his intention to the Admiralty as follows:

'My reasons for making this settlement are the necessity there appears of preventing the French gaining a footing on the east side of these islands; to divide the convicts; to secure another place for obtaining timber with any other natural productions that may be discovered and found useful; the advantages that may be expected by raising grain; and to promote the seal fishery.'

Commissioned to make the Derwent settlement, Lieutenant John Bowen sailed from Sydney with the *Albion* and *Lady Nelson*; the two vessels separated in a gale but were anchored at Risdon by 11 September 1803, when Bowen went ashore. The slenderness of Governor King's resources is apparent from the fact that the settlers—free, convict and military numbered only 49 and that the *Albion* was a British whaler under temporary charter (she caught three sperm whales on the voyage while becalmed).

The responsibility for the choice of the Risdon site attaches ultimately to Bass who had made detailed investigations of the Derwent in 1798 from the *Norfolk*. He had reported as follows: 'The land at the head of Risdon Creek, on the east side, seems preferable to any other on the banks of the Derwent.' It was not surprising, therefore, that Bowen's commission from Governor King directed him to locate the new settlement in the Risdon area. In actual fact, the site ultimately proved unsuitable due to the inadequate stream and the poor landing place; these handicaps were aggravated by the wretchedness of the human material at Bowen's disposal, a characteristic not altered when the camp was increased to nearly 100 persons.

If the settlement has any claim to fame, it derives from an encounter with natives who descended on the camp on a hunting expedition and who were fired on by the soldiers in a state of panic. Whether the future barbarities of inter-racial war could have been avoided is an open question but this encounter was the first phase of a struggle that ended in the extinction of a race.

The final act of the Risdon settlement was played on 9 August 1804, when the *Ocean* sailed for Port Jackson with Lieutenant Bowen and most of his people; Lieutenant-Governor Collins at the new settlement at Hobart had decided to close down the Risdon camp and held such a low opinion of these early colonists that he retained only thirteen convicts and one free settler.

The Settlement at Hobart (1804)

If Lieutenant-Governor Collins had carried out his original instructions, then Hobart today might have been the name of the capital of Victoria situated on Port Phillip Bay. The British Cabinet, impressed by Governor King's warnings on possible French penetration, decided to carry out the occupation of Port Phillip direct from Britain and, to this end, commissioned Lieutenant-Colonel Collins (Royal Marines) to command an expedition in the *Calcutta* with the *Ocean* as tender to secure the strategic Bass Strait. Control of the Strait meant that the dangerous 1,100 kilometre journey around Van Diemen's Land was avoided and also prevented a hostile foreign power from threatening British sea lanes in the South Pacific.

The settlers eventually arrived, via Rio De Janeiro and the Cape of Good Hope, and formed a temporary camp near the site of the modern Sorrento township. For a variety of reasons, Collins was unhappy about the locality; he considered navigation hazardous, the soil poor and water inadequate. He was unwilling to develop promising land at the head of the bay due to the show of strength by large bands of natives and because of its distance from the open sea. Collins had seen the problems of isolation at Sydney and considered a settlement at the head of Port Phillip Bay unduly hazardous. With the wind in the wrong quarter a ship could be locked in the bay for several days thereby defeating the purpose of the settlement—a port to protect and control Bass Strait. Accordingly he wrote for advice to Governor King in Sydney and was left free to decide between the River Derwent and Port Dalrymple as possible sites for transfer of his command. He was probably swayed in his eventual choice of the River Derwent by its reputation as a safe harbour and the fact that Risdon had already been settled.

On 15 February 1804, Collins, with the first detachment from Port Phillip in the *Lady Nelson* and *Ocean*, anchored off the new settlement at Risdon. A quick inspection satisfied Collins that the site was quite unsuitable and he made his own reconnaissance, eventually selecting the area on the western bank known as Sullivans Cove and ordering that the expedition should be disembarked with all its stores in the vicinity of Hunters Island. In the same month, Collins reported to King that his two ships were 'lying within half a cable-length of the shore in nine fathoms of water'; the Lieutenant-Governor had selected gentle slopes for his settlement, located a fine stream running from Mt Wellington and found near the mouth of the stream depths of water which would accept the draught of any vessel of his day (or of the modern era).

The following table shows the early composition of the settlement at Sullivans Cove (but excludes details of the Risdon camp):

Number Victualled at Sullivans Cove, 26 February 1804

Quality	Men	Women	Children
Military Establishment	26	1	..
Civil Establishment	6	..	..
Settlers	13	5	13
Convicts	178	9	8
Supernumeraries	(a) 3	..	..
Total	226	15	21

(a) Includes one Aboriginal from Port Jackson.

The strength of the colony was increased to 433 persons in June 1804 when the *Ocean* returned from Port Phillip, where it had taken aboard the balance of the original expedition. From the camp on Sullivans Cove has sprung the present city and port of Hobart.

David Collins was no amateur in the field of colonisation—he had sailed with Governor Phillip as Judge Advocate in the First Fleet in 1788 and had acted as Secretary to the Governor till 1796 when he returned to Britain with excellent recommendations.

The Settlement on the Tamar (1804)

While the Lieutenant-Governor was still in Port Phillip Bay, wondering where best to settle, he sent his namesake, William Collins, on a voyage of exploration to the Tamar Estuary. William Collins followed the river up as far as the Cataract Gorge and returned to Port Phillip with a good account of the possibilities of the Tamar for settlement; in his absence, however, the Lieutenant-Governor had made up his mind and was already preparing for the expedition to the Derwent.

Later Governor King received a despatch from Lord Hobart (Secretary of State for the Colonies) who, by a grotesque error, recommended the establishment of a settlement at Port Dalrymple 'upon the southern coast of Van Diemen's Land and near the eastern entrance of Bass' Straits'. If Lord Hobart really meant 'south' then Collins' move to the Derwent had anticipated his wishes. However, since Collins had in fact left Port Phillip, was it not necessary to re-occupy Port Phillip or possibly to watch the Strait from Port Dalrymple? King knew that Hobart's despatch was written in ignorance of Collins' move and accordingly decided to use his own initiative without raising questions of geography with the Secretary for Colonies.

In Hobart's despatch, Lieutenant-Colonel William Paterson (New South Wales Corps) was nominated as Lieutenant-Governor of the new colony. Paterson set sail with 57 soldiers and convicts in the *Integrity* and the *Contest* but after a month of adverse winds both ships were forced back to Port Jackson. A second attempt was made using *Buffalo*, *Lady Nelson*, *Francis* and *Integrity* and increasing the party to 181. This time the Tamar was successfully entered but H.M.S. *Buffalo* went aground and was, with some difficulty, brought to anchor in Outer Cove (George Town) on 4 November 1804. Lieutenant-Colonel Paterson decided that *Buffalo* must be immediately unloaded and accepted the Outer Cove site as a suitable camp while he undertook a more detailed reconnaissance of the Tamar.

Although he penetrated as far as the fertile site of Launceston, Paterson made the extraordinary decision to set up his headquarters at the head of West Arm and founded York Town, while still maintaining small establishments at Outer Cove, Low Head and Green Island. In deciding on York Town, one can only imagine that Paterson was guided purely by the strategic necessity, as was Collins at Sorrento, of being near to Bass Strait and that he gave little thought to the problem of soil fertility and cultivation.

In March 1806, Paterson was willing to admit that York Town was a most unsuitable site and he accordingly moved his headquarters to the present site of Launceston. Today York Town and Risdon have one thing in common—the almost complete absence of any indication that settlements had ever existed.

Paterson, before setting out on his expedition, had been involved in an argument as to his status but Governor King had resolved the matter by dividing Tasmania at the 42° parallel and making Collins and Paterson sovereign in their respective halves, but subordinate to him as Governor.

COLONIAL DEVELOPMENTS DURING THE GOVERNMENT OF FRANCIS SMITH

(12.5.1857 to 1.11.1860)

Introduction: Francis Smith

Previous Experience

Francis Smith had established himself as a leading figure in the administration of the colony before he assumed leadership of the Tasmanian Government in May 1857. After he returned from England in 1844 he set up legal practice in Hobart and soon came under the notice of the colonial administration. In 1848 Sir William Denison appointed Smith Acting Solicitor-General; he held this position for 18 months until the arrival of Mr Stonor from England. When Stonor took up duty as Solicitor-General, Smith was appointed Crown Solicitor and Clerk of Peace of Quarter Sessions. In April 1851 Smith was appointed as an official nominee of the Governor to the old 'Legislative Council' and Denison again made him Acting Solicitor-General. At the time of appointment Denison, in a despatch to Lord Grey (Secretary of State for Colonies), wrote '... I appointed Mr Smith the Acting Solicitor-General in preference to any other Officer of the Government in order to have the benefit of his talents and power as a debater in the various questions which must necessarily be brought under discussion ...'. Denison was well pleased with Smith's work and in 1854 saw fit to appoint him Attorney-General, the post he held until self-government was granted to the colony in 1856.

At the elections of 1856, held to elect the first bi-cameral Parliament of Tasmania, Smith was returned as a member of the House of Assembly. He held the portfolio of Attorney-General in W.T.N. Champ's Government, the first formed after the granting of self-government to the colony.

Smith's Government

On 12 May 1857 Francis Smith assumed the leadership of the fourth government of the colony—the previous three governments had had an aggregate life of only seven months. At this early stage of self-government no strong political parties had emerged, only loose alliances of 'liberals' or 'progressives' and 'conservatives' existed. Parliament was in fact very much the maker and breaker of governments. Hence the life of a government depended largely upon the personality of the leader and his ability to attract a cabinet of capable and eminent politicians.

Smith may not have been well liked by many members but he provided the necessary strong leadership to hold his Government together and was able to gain the services of some of the Colony's leading men in his Ministry. The Ministry, which he formed on 12 May 1857, comprised William Henty (Colonial Secretary), Thomas John Knight (Solicitor-General), Frederick Maitland-Innes (Colonial Treasurer), William Pritchard Weston, John Walker and Robert Quayle Kermode, all without office. (Weston had preceded Smith as Premier and again held office after Smith's resignation in November 1860; Innes became Premier of the Colony from November 1872 until August 1873.) Smith took the Attorney-General portfolio, but did not officially adopt the title of Premier.

On 1 November 1860 Francis Smith resigned from Parliament to take up a position of Puisne Judge of the Supreme Court of Tasmania. The life of his government was 42 months, a remarkable feat when considered against a background of serious economic depression in the Colony and the numerous factional disputes within the Parliament. Smith coped with these problems and was able to guide through Parliament a considerable volume of worthwhile legislation. His government also gave some semblance of stability to colonial self-government in Tasmania.

The Question of British Government Contributions for Colonial Police and Gaols

In 1846 the British Government had agreed to contribute to the Colony an amount for police and gaols equal to two-thirds of the cost of police and gaols in the Colony for 1845. The amount of the contribution decided upon was \$48,000. This had been agreed to to pacify the colonists who claimed, with justification, that they were being unfairly burdened with the expenses of police and gaols which were directly attributable to transportation. In 1853 transportation to Tasmania ceased and the British Government decided to review its policy of annual police and gaol cost contributions to the Colony. It was decided to reduce contributions and make 1857 the final year of payment when the Colony would receive \$12,000.

Rejection of the British proposal was almost unanimous. Settlers and the newly elected Parliament felt that the British Government was attempting to escape from its responsibility to the Colony. Their argument for continued British contribution was based on: (i) the gaols still held many transported convicts whose sentences had not yet expired; (ii) the Colonial treasury had to bear the expense of caring for released destitute convicts; (iii) many convicts committed further felonies after release and were returned to prison; (iv) the large number of ex-convicts increased the crime rate and added to police costs; and (v) it was not reasonable to expect the Colony to bear the burden of pension expenses of officials connected mainly with administering the convict system. Furthermore, the British Government contribution had been decreasing during a period of inflation, and, on this basis, the Colonial Government calculated that since 1851 the British Government's contributions had fallen short of the two-thirds cost figure by \$386,000. The Tasmanian Government based their claim on the British Government agreement in 1846 to meet two-thirds of the 1845 cost of police and gaols. The claim for \$386,000 was further prompted by the need for a substantial inflow of cash to the Colonial Treasury's Funds.

Lord Stanley denied that the British Government was liable for the sum claimed. The British Government had agreed to contribute a fixed sum equal to two-thirds of the cost of police and gaols in Tasmania in 1845. This fixed sum, \$48,000, had been paid to the Colony until cessation of transportation after which it had been reduced annually. However, the British Government could see some justification in the claim and was prepared to continue to pay \$12,000 to the Colony. The Governor conveyed this message to Parliament.

Parliament was not satisfied. The sum of \$12,000 represented less than half of the debt interest burden incurred by the Colony for police and gaols. Smith requested that the Governor inform Lord Stanley of this fact.

In February 1859 Sir E. B. Lytton (Lord Stanley's successor) replied to Smith's despatch. He assured the colonial government that the British Government had no intention of meeting the claim for \$386,000. He pointed out that it had never been the intention that the British Government should meet two-thirds of the current cost of gaols and police. A fixed sum had been decided upon to prevent extravagant spending by the colonial legislature. This reply incensed the Tasmanian Parliament and in August 1859 a joint committee of the two Houses recommended, that as no satisfaction could be obtained, a sum should be voted by Parliament '... to be expended in conveying to England all those persons, whether expirée Paupers or others, whose maintenance is at present unfairly made a charge on the Colony'. This step was not resorted to, but Smith despatched a reply, under his, Henty's and Innes' signatures, to the Secretary for Colonies. Again the British arguments were repudiated and the colonial demands and their justification re-iterated. However, no further contribution could be extracted from the British Government and the Tasmanian Parliament had to be satisfied with \$12,000 annually.

Ecclesiastical Aid

State aid for the Church of England, Presbyterian and Catholic religions dated from 1838 when an Act was passed to set aside funds for the three churches for construction of buildings, church maintenance and clerical stipends. The annual sum allowed for the three religious bodies was \$30,000.

Smith did not favour this form of sectarian aid and in 1857 his Government mooted that legislation would be introduced to end the assistance. The proposed legislation was acclaimed by many colonists, who reasoned that it was unfair for a select group to benefit from funds contributed to by all settlers. The religious aid question had proven most irksome to those whose faiths were excluded—in the words of one group of petitioners: 'That the vote of public money annually made by Parliament for Ecclesiastical purposes is a source of dissatisfaction and irritation to a large number of the inhabitants of this Colony.' However, a substantial body of settlers, notably those whose churches benefited, favoured continuance of the ecclesiastical vote. They argued that the money furthered the propagation of religious teaching in the colony, helped uphold community moral standards and ensured the survival of the colony's churches. An 1858 petition to Parliament summarised the feelings of the proponents of the ecclesiastical vote in the following manner: '... notwithstanding the recent introduction of free immigrants, the great majority are still indifferent, if not opposed, to the regular and faithful administration of the ordinances of religion: consequently if the maintenance of public worship be made dependent upon the voluntary contributions of the people, the many, for whose benefits these ordinances have been hitherto instituted and upheld, would probably contribute little or nothing towards their support ...'.

Parliament finally passed legislation to end the ecclesiastical vote in 1859. The Bill, however, was reserved for Queen Victoria's assent and it was forwarded to England for perusal by the British Government. The legislation did not find favour and on 10 March 1860 Lord Newcastle wrote to the colonial government that the British Government had carefully studied the proposed legislation and was '... unwillingly compelled to advise Her Majesty to withhold her sanction from the Bill ...'. Lord Newcastle claimed that the Bill violated the rights of certain vested interests (i.e. the clergy of the three churches) and did not provide adequate compensation for those clergymen who would lose their positions if State assistance were abolished.

There the matter rested until 1869 when State aid to churches was finally abolished in Tasmania.

The Federal Union Question

The question of a 'Federal Union' of the Australian Colonies had already been raised by 1857. In 1856 Deas-Thomson of New South Wales wrote 'The time, I look upon it, is not far distant when the Colonies will adopt some Federal arrangement, and by this means a Tariff congenial to all may be agreed upon ...'. Deas-Thomson's views on the tariff question and other matters, such as defence, postal and telegraphic communications were shared by Smith who felt that there existed definite advantages in inter-colonial agreements.

In 1857 the Tasmanian House of Assembly received a copy of a Victorian resolution, the result of the work of Charles Gavan Duffy, urging that a conference of colonial delegates be held to discuss a Federal union of the Australian Colonies. Smith concurred with the sentiments expressed in the Victorian resolution and in February 1858 the House of Assembly resolved '... that it is desirable that Delegates from the Australian Colonies should assemble in Conference with power to frame a plan of Federation for the approval of their respective legislatures. That this House, therefore, responds to the invitation of the Victorian Legislature, and is prepared to appoint Delegates from this Colony when arrangements for the proposed conference shall have been completed.'

However, beyond this little further progress was achieved until 1880 when it was decided to create a Federal Council to deal with inter-colonial problems.

Parliament

Parliamentary Privilege

Until 1858 Parliament lacked the power to summon any person to attend before either of its Houses or any of its committees, nor could Parliament deal with any person who attempted to unlawfully interfere with its workings. These were considered serious deficiencies in Parliament's powers and in 1858 the *Privileges of Parliament Act* was passed to rectify the situation. The Act conferred on both Houses of Parliament or any committee of either House the power to order a person to attend before the House or committee and to answer questions or produce any document required. The President of the Legislative Council and Speaker of the House of Assembly were given the right to issue a warrant for the arrest and imprisonment of a person found guilty by either House or committee thereof of contempt of Parliament. Contempt included: (i) disobeying any order of either House or of any committee; (ii) refusal to be examined or to answer relevant questions; (iii) assaulting, menacing or obstructing any member of Parliament or intimidating or attempting to intimidate any member of Parliament; (iv) publishing or sending to a member a threatening or insulting letter; (v) offering to fight a member because of his Parliamentary behaviour; (vi) offering a bribe to or attempting to bribe a member; and (vii) creating or joining a disturbance within either House or in the immediate vicinity of Parliament.

Electoral Reform

Tasmania's 1858 *Electoral Act* was the first comprehensive statute passed in the Australian colonies covering electoral procedures. The legislation established stringent conditions which were to be adhered to in all facets of Parliamentary elections.

Electoral Procedures: The statute required a returning officer to be appointed for each Council and Assembly electoral district. The returning officer was required to prepare an electoral roll for his district and to make the roll public. Any person was given the right to object to another person appearing on the roll or to his own exclusion from the roll. Prior to elections the returning officer had to make public a list of all polling places for the district. Once the centres were listed he had then to ensure that sufficient accommodation was provided to allow secret voting, that the centres were supplied with adequate writing materials and ballot papers and that ballot boxes were provided. Provision for secret voting and the ballot box were the most significant aspects of the legislation and ensured fair and honest elections. Voting was not compulsory.

Illegal Practices: The Act prescribed a substantial penalty for contravening electoral law. Bribery and corruption were defined and included vote buying, promising special considerations in return for the elector's vote and procuring votes by promise of public employment. If any agreement were made to achieve such ends then both parties were punishable. The penalty for bribery or corruption was a \$200 fine. Interference in the right to vote was outlawed and included intimidation of voters by threats and attempting to prevent or preventing electors from voting. The legislation also included a prohibition on the distribution of cockades, ribbons and other election propaganda such as the display of banners and the use of bands and music. Parliament intended that elections should be sober and orderly affairs rather than an occasion for riotous behaviour.

Electoral Boundaries: The Act formalised electoral boundaries for both the House of Assembly and Legislative Council.

Local Government

During Francis Smith's Ministry legislation was passed that established the foundation from which evolved today's system of local government. Hobart was incorporated as a city by legislation in 1857 while a similar act of 1858 incorporated Launceston as a town. However, the principal legislation was the *Rural Municipalities Act* 1858.

City of Hobart

An Act of 1846 had divided Hobart Town into five wards, each represented by three elected commissioners. The commissioners were made responsible for lighting, paving, drainage and town surveying. In 1852 Hobart was given a municipal council comprising seven aldermen elected for two year terms. The aldermen elected one of their number as mayor. Property qualifications were established for both electors and aldermen. The council was permitted to own land and was entrusted with the formation of streets, lighting, paving, setting up of posts and rails, provision of waterworks and administering markets and was also required to appoint a Director of Waterworks and a Town Surveyor. The council was permitted to levy rates for the services provided—the total rate was not to exceed five cents in the dollar of annual value. In 1857 control of police in Hobart Town was vested in the Council.

Hobart Town Corporation Act 1857: This legislation incorporated Hobart as a city, prescribed its boundaries and established qualifications for electors and aldermen. The council was increased to nine aldermen, including the mayor who was elected by the aldermen. Each year three aldermen retired. All occupiers of property with an annual value of \$40 or more were subject to rates. The Council was empowered to borrow money for the purpose of carrying out works.

Launceston

In 1852 Launceston had been given a council of seven aldermen with similar powers and responsibilities to the Hobart Council. Legislation in 1857 made the council responsible for police within the township.

Launceston Corporation Act 1858: Under this Act the Town of Launceston was incorporated under the title of the 'Mayor, Aldermen and Burgesses of the Town of Launceston'. Boundaries were defined and property qualifications (the same as those applicable to Hobart) were prescribed for electors and aldermen.

Rural Municipalities Act 1858

This statute's purpose was the establishment of municipal institutions in the country towns and districts of the colony. Any electoral, police or road district, town or part thereof could be constituted a rural municipality on the receipt of a petition from 50 persons who were occupiers of property with an assessed annual value of not less than \$40 in the area. Management of rural municipalities was entrusted to six-member councils. Council members elected one of their number as warden for the municipality.

Plural Voting: One of the less popular aspects of the legislation was the adoption of the principle of plural voting. Occupiers or proprietors of property with an annual value of \$30 and under \$100 received one vote—each additional \$100 annual property value gave the elector one more vote up to a maximum of 10 votes for occupiers or proprietors of property with an annual value of \$900 or greater. Many considered this undemocratic, however, the Government believed that plural voting based on property qualifications would keep local government in the hands of responsible citizens.

Functions: Rural municipalities received a wide range of responsibilities, some of which have since reverted to State Government (e.g. police). Functions allocated were: (i) care and management of public roads and streets; (ii) control of police within the municipality; (iii) water supply; (iv) licensing butchers; (v) dog registration; and (vi) administration of the *Common Lodging House* and *Impounding Acts*. Municipalities could borrow money for public works and levy a special loan rate, but only when such loan was sanctioned by the ratepayers.

Revenue: Funds were derived from: (i) rates under the *Rural Police Act*; and (ii) rates not exceeding (exclusive of police rates) 15 cents in every two dollars on the annual value of property. Half of all penalties were to be put into the police fund and the other half put to the police reward and superannuation fund.

Most welcomed the legislation giving greater autonomy in matters of local government, however, there was some hesitancy by proprietors and occupiers of property to take advantage of the Act. They felt that the proclamation of a municipality would burden them with increased expenses and by 1860 only one municipality (Clarence) had been proclaimed under the Act. (In 1861 a further three municipalities were proclaimed.)

Marine Boards

Parliament made Marine Boards a matter for local control in 1857 with passage of the *Marine Board Act*. Two marine boards, Hobart and Launceston, were created and given general control and management of all ports, light-houses (now a Commonwealth responsibility), pilots and other matters relating to navigation.

Hobart Marine Board's area of jurisdiction extended from Cape Portland (north-east corner of Tasmania) along the east coast, around southern Tasmania and northward to 42°S on the west coast. The remainder of the coast was controlled by the Launceston Marine Board.

Education

Sir John Franklin had removed education from church control in 1839 when he appointed a non-sectarian Board of Education to administer the colony's government schools. In January 1857 two boards of education were created—one responsible for southern Tasmania and the other for northern Tasmania.

During Smith's Government considerable progress was achieved in the field of education. In 1857 3,720 children attended government schools—2,514 attended the 55 schools administered by the Southern Board and 1,206 attended schools controlled by the Northern Board. However, these figures are not a true indication of the number who received schooling for a full year. Many children attended schools for a few weeks each year when they could be spared from work on the farms, while in the sparsely populated areas schools only operated for part of the year. In 1860 4,194 children attended schools under the control of the Southern Board but average daily attendance at the schools was only 1,899 children. Government expenditure on its schools was \$19,600 in 1857 and exceeded \$26,000 in 1860. Parents were also required to make a direct contribution towards the cost of educating their children at government schools—they contributed approximately \$6,000 in both years.

Government schools catered mainly for children up to the age of 12 or 13 years. The few government schools providing more advanced courses were known as 'superior' schools. Only basic subjects were taught at most schools—reading graded from 'monosyllables' to 'books of general information', arithmetic, algebra, geometry, grammar, history, geography and the 'holy scriptures'. The level of student attainment depended upon the teachers, of whom many were not particularly well endowed to teach. In 1859 the Chairman of the Southern Board of Education (J. J. Stutzer) wrote '2. Reading. The children are all taught to read, and nearly all above six read with tolerable correctness. Every year, of course, increases their fluency; but beyond this they seldom go. One reason is, that their teachers seldom read well, and the accent of many is exceedingly vulgar and provincial'. However, the majority of the teachers applied themselves diligently to their work and at least gave a rudimentary education to the children.

Tasmanian Scholarship Act 1858

This Act established a Council of Education and eight Tasmanian scholarships. The legislation represented the first step towards the creation of a Tasmanian university in that it encouraged interest in the development of tertiary education.

Council of Education: Comprised 15 persons and was empowered to award a degree of 'Associate of Arts' to Tasmanian youth. The Council was required to establish subject standards and hold annual examinations for the purpose of awarding the degree. Selection of recipients for the scholarships, created by the Act, was also made a responsibility of the Council.

Tasmanian Scholarships: The legislation created eight scholarships to be awarded; two each year in 1861, 1862, 1863 and 1864. Scholarships were available to Tasmanian youth to enable them to undertake studies at an English university. Annual value of each scholarship was \$400.

Gold

The absence of any major gold discoveries in Tasmania played an important role in the colony's development. Discoveries in Victoria, and to a lesser extent in New South Wales, had resulted in a major exodus of population to the mainland gold-fields. The direct consequences for Tasmania were a shortage of labour, high prices for imported goods in the colony and a slowing down of development. Compounding the labour shortage problem was the difficulty that the colony found in attracting immigrants—most preferred to chance their luck on the gold-fields rather than settlement in Tasmania.

In 1858 the Government passed the *Auriferous Lands Act* designed to encourage and to regulate gold mining within the colony. However, no major discoveries resulted. The answer appeared to be a major government financed search. The largely unexplored country to the west of Lake St Clair was thought to hold out the best prospects and in late 1859 Charles Gould, government geologist, was chosen to lead the expedition. Gould's party of 22 included men with experience on the Victorian diggings. The expedition set out in December 1859—colonists, particularly Hobart's citizens, were loud in their praise and held high hopes for the exploration.

In January 1860 the exploration party commenced its work proper in the Eldon Range. The party worked through some of Tasmania's wildest country—the territory covered included the King River Valley and the country northward to Cradle Mountain and Mt Murchison. Although traces of gold were found, Gould, after four months' toil, was forced to conclude that no gold or other mineral deposits worthy of development existed in the area.

Concurrent with Gould's western expedition, Ronald Gunn was appointed to explore the north-west for gold. Many of his party decamped and the expedition was abandoned.

The two expeditions had cost the Government \$2,200 and the only tangible result was an increased knowledge of the geography of the country covered. The only gold mining worthy of mention remained the Fingal quartz crushing operation from which small quantities of gold were recovered.

Settlement

Area Settled

By 1857 settlers had occupied less than one-third of the Colony's area.

The South: From Hobart settlement followed the coast southward to Snug. Further around the south coast pioneers were engaged in clearing the heavily timbered Huon Valley and establishing fruit orchards. (The Huon settlements were reached either by bush-track or boat from Hobart.) On the Derwent's eastern shore settlers had taken up land almost to Eaglehawk Neck. Northward from Hobart they had followed the Derwent Valley as far as Ouse.

The Midlands: Settlement followed the axis of the Hobart-Launceston road and stretched from 15 to 25 kilometres either side of it. The Bothwell area was settled and some more intrepid pastoralists had occupied land in the Lake Sorell area. The Ouse River marked the western boundary of settlement. In the north of the area settlers had followed the valley of the South Esk as far eastward as St Marys.

East Coast: A narrow band of settlement followed the Prosser River to the coast and then stretched northward to Swansea.

The North: From Launceston settlers had occupied the east bank of the Tamar to its mouth, while others had pressed westward along the Meander Valley to Deloraine.

North-West: Three principal areas of settlement existed west of Deloraine. They were the Port Sorell-Latrobe-Devonport area, Burnie and its southern hinterland and Circular Head. Elsewhere isolated hamlets and individual dwellings dotted the bush. From 1850 onwards the north-west became a principal area of new settlement.

North-East: A few isolated settlements occurred along the coast and in the river valleys.

The western portion of the colony, excluding the north-west coastal strip, was unsettled and largely unexplored.

Waste Lands Act 1858

By 1850 the more accessible country had been alienated—fertile land remained for settlement but it was more isolated and frequently heavily timbered. This factor, combined with the allurements of the Victorian gold diggings, led to a marked reduction in the rate of expansion of the settled area. Francis Smith and his Ministry felt that a restructuring of the colony's land laws could help revive the rate of settlement and bring new areas into production. With these factors in mind plus the need for revenue from crown land sales the 1858 *Waste Lands Act* was passed. The legislation, which was favourably received by the colonists, repealed all previous legislation relating to the disposal of Crown land. The statute created a Commissioner of Crown Lands who was responsible for the disposal and leasing out of Crown lands. Crown land was classified as: (i) first class—town land (land within the boundary of a township or village, proclaimed town land or within five miles of Hobart's or Launceston's boundaries); (ii) second class—agricultural land (land within areas proclaimed as agricultural land, deemed suitable for agriculture or advertised in an auction notice as agricultural land); and (iii) third class—pastoral land (in effect all other land). Minimum prices were fixed for the disposal of Crown land; (i) land not previously held under grazing licence, \$2.47 per hectare (\$1.00 per acre); (ii) other land (except town land), \$4.94 per hectare (\$2.00 per acre).

Disposal of Land: The Act ended large scale grants of crown land and prescribed the auction as the normal method for disposal of Crown land. All land had to be put up for auction; the Commissioner was required to publish an auction notice, which advertised the date of sale and described the area for sale, in the Government Gazette. He also had to fix a reserve price, based on an appraisal of the land's worth and recent sales of similar land. If at the auction the reserve price was not reached then the land (except town land) could be sold at the fixed price of \$4.94 per hectare (\$2.00 per acre). For sale by auction land lots were not to exceed 65 hectares (160 acres) for agricultural land or 518 hectares (1,280 acres) for pastoral land, while land sold by private sale could not exceed lots of 130 hectares (320 acres). Purchasers were not permitted to buy more than one lot.

Credit: Purchase of Crown land on credit was permitted. For agricultural and pastoral land the formula was $P (P = \text{purchase price}) + \frac{1}{5} P$; $\frac{1}{5} P$ payable at time of purchase and the balance (P) repayable in 10 equal annual instalments. The buyer could pay off his land in advance of the prescribed time. Failure to meet payments meant forfeiture of the land and money already paid. Forfeited land could then be sold by auction—if the amount realised exceeded the amount owing then the surplus was refunded to the former owner.

Smith hoped that disposal of agricultural land in small blocks plus the availability of credit terms would provide an incentive for settlers to occupy the more difficult crown land, particularly along the north-west coast. He also hoped that the legislation would foster the development of a small-farm, middle class land-owning group.

Unsettled Lands Act 1858

Following the *Waste Lands Act* Smith's Government introduced and passed the *Unsettled Lands Act 1858*. The Colony was divided into two regions—the settled and unsettled areas. The latter encompassed roughly that area of the colony lying south of the Arthur River and bounded by a line from South Cape to the confluence of the Derwent and Florentine Rivers and from that point by a line north-west to Barn Bluff then from there to the upper reaches

of the Arthur and then along the Arthur River to its mouth. This area included Tasmania's most inhospitable terrain—high mountains, numerous rivers, ravines, dense rain-forests, etc. No roads penetrated the area and in winter and spring much of the area was snow-clad.

Considerable incentive needed to be offered before settlers could be expected to take up land in this area. The incentive provided was free-land grants. Land was made over to the settler on the condition that after five years he would have cleared, fenced and brought into cultivation two hectares (five acres) of land for every 20 hectares (50 acres) taken up. Alternatively the settler had to have erected buildings and installed machinery valued at \$500 for every 20 hectares held. Fulfilment of the conditions meant receipt of title to the land. Failure to meet the conditions could result in: (i) Crown resumption of the land; (ii) a partial grant proportional to the conditions met; or (iii) an extension of time to meet the terms of occupancy.

Needless to say even the offer of free land grants failed to attract settlers into the area. Most of the country proclaimed as unsettled by the 1858 Act remains so today apart from mining townships, Hydro-Electric Commission and timber camps.

The North-West Selectors

From the mid-1850s the north-west became a major area of new settlement. This area of heavy timber and fertile soils was settled by the small farmer who frequently took up blocks of land of less than 40 hectares. Considering the nature of the land to be cleared ('... Heavy forests of Gum trees, and also with a close undergrowth of Sassafras, Musk, Dogwood, Fern trees and scores of unnamed trees and shrubs . . .' wrote Calder, a Government surveyor in 1860) of the land lying west of the Don River and the implements available (axe, pick, shovel and crowbar) it was not surprising that the north-west was the area of the small selector. The first task facing a settler was to hack out a clearing to pitch a tent or erect a rough shelter. He then faced the task of carving out a clearing of a few acres in the dense bush. Small saplings and undergrowth were felled and the large trees ring-barked. The tangled mass was allowed to dry out and then the torch applied. (The threat of fire was constant during the summer months and many settlers lost all their belongings to the flames.) After burning-off the selector tackled the small stumps—grubbing them out and gathering fallen limbs to make way for his crop of grain or potatoes. The ground was frequently cultivated with the hoe for the first crop. After planting attention was turned to a new area of bush and a new cycle of slashing, burning, stump grubbing and gathering commenced.

After harvesting the crop from the initial clearing the smaller of the large ring-barked trees were felled and their stumps grubbed. The fortunate farmer had horses or bullocks to help haul the logs and stump pieces into heaps for burning—others had to rely on their own strength and crude implements. At the end of three years' toil a patch of a few acres was sufficiently cleared of debris to permit ploughing. Often several decades passed before the last remnants of the forest giants were cleared from the paddocks.

Agriculture

By 1857 approximately 83,400 hectares (ha) were under cultivation and by 1860 this figure had reached almost 89,000 ha. Principal crops in 1860 were wheat (26,900 ha yielding 1.42m bushels), oats (12,300 ha), barley (2,500 ha), potatoes (3,100 ha) and turnips (500 ha). Small quantities of tobacco were grown and in 1860 production of 119,000 bushels of apples and 22,000 bushels of pears was reported. The main agricultural areas were to be found in the south-east, midlands and Meander Valley.

Pastoral

Grazing sheep for wool was a principal activity. Large tracts of land had been alienated (much by the way of grants) to graziers, who by 1860 had established themselves as the wealthy land-owning aristocracy of the colony. Sheep numbered 1.7m by 1860 and wool exports from Tasmania during that year were valued at \$740,000. The quantity exported was 2.1m kg. In the better class country cattle grazing was also carried out.

Sheep and Cattle Stealing: Concurrent with development of the grazing industry came an increase in the frequency of sheep and cattle stealing. Graziers were vocal in their protests—several petitions, concerning the prevalence of the crime and calling for harsher penalties, were forwarded to Parliament. The animals were often only stolen for their hides and a number of enterprising colonists travelled the countryside purchasing hides from which all identification marks had been obliterated. This particularly incensed stock-owners who knew that the skins were from stolen animals but could not prove the fact. In 1859 the Government, in answer to petitions, passed legislation prescribing harsher penalties for stock stealing and for receiving stolen stock or their hides.

Communications

Roads

The only road maintained by the Government in 1857 was the Hobart-Launceston Highway. All other roads were the responsibility of the residents of road districts proclaimed under the *Cross and Bye Roads Act*. In 1858 roads were made the responsibility of rural municipalities proclaimed under the *Rural Municipalities Act*. The road network by 1860 had not shown much improvement over the 1857 situation—the quality of roads still depended largely upon the wealth of local residents and in the newly settled areas roads were almost entirely absent. Gunn wrote in 1860 that the almost complete lack of formed roads to the west of the Don River was a primary obstacle to settlement and urged government construction of roads in the area. However, several years were to pass before the Government accepted any large responsibility for road maintenance and construction.

Electric Telegraph

A telegraphic link between Tasmania and Victoria was first proposed in 1857. Soundings were taken along the alternative routes and in December reports were tabled in the House of Assembly. The route selected was from Cape Otway (Victoria) to George Town via King Island, Three Hummock Island and Circular Head. In 1858 a contract was signed with McNaughton Co. to lay the cable and construction was completed in 1859 at a cost of \$84,000. However, it failed in 1861 due to faults in the cable and the nature of the ocean bed along which the cable was laid.

Railways

Petitions were received from land-holders in the Longford-Carrick-Cressy area calling for construction of a railway through the area to Launceston. In 1858 a Joint Committee of Parliament presented a report recommending that the Government give financial support to any company undertaking the task. Again in 1860 a Select Committee of the House of Assembly recommended in favour of a railway in the Meander Valley area. The Committee concluded that the line would generate sufficient revenue to cover operating cost and debt charges. (In 1871 when the line was opened revenue only met operating costs and was insufficient to meet debt charges and pay any dividends on capital.) However, despite favourable reports the Government declined to undertake the project.

Postal Communications

The colony conducted its own postal system—popularly known as the 'penny post', a name derived from the general postage rate charged on letters. The department responsible for postal communications, the Post Office Department, operated 97 post offices and receiving houses in 1860 (an increase of 30 from 1856). Mail deliveries were made to virtually all established settlements in the colony and in 1860 employment was provided for approximately 120 persons. During 1860 the colonial government derived \$20,653 from the sale of postage stamps and paid from the General Revenue Account of the Colony \$27,235 for running the Post Office Department.

Government Finance

The period 1857 to 1860 was one of severe financial pressure—at the commencement of colonial self-government Treasury funds were extremely low. The depressed state of the colony's economy and rising prices made it extremely difficult for the Government to raise the necessary revenue to pay for the services provided and the costs of government. The principal revenue sources in 1860 were customs revenue (\$237,000), the sale and rental of Crown land (\$166,000), rural police rates (\$30,000), publican's licences (\$27,000) and sale of postage stamps (\$21,000). Receipts from the sale and rent of Crown land together with survey fees were credited to the Land Fund. Principal items of expenditure from the Land Fund were the cost of running the Survey Department and debt charges. Major items of expenditure from the Colony's General Revenue Fund included the direct costs of government and government departments, the judiciary and the ecclesiastical vote. In 1860 the government spent \$19,000 on the Hobart-Launceston main road, however, this was the only road for which direct responsibility was assumed.

Statistical Summary

The next table gives selected statistics of the decade 1850 to 1860:

Statistical Summary: 1850 to 1860

Particulars							1850	1855	1860
POPULATION (a)									
Males	..	..	..	..	..	..	44,229	38,680	49,653
Females	..	..	..	..	..	..	24,641	31,282	40,168
Persons	..	..	..	..	..	..	68,870	69,962	89,821
RURAL INDUSTRIES									
Area of Principal Crops—									
Cereals for Grain—									
Barley	..	..	..	..	..	hectares	5,334	4,887	2,524
Oats	..	..	..	..	..	hectares	14,262	15,466	12,263
Wheat	..	..	..	..	..	hectares	26,163	26,264	26,892
Potatoes	..	..	..	..	..	hectares	2,690	3,609	3,084
Turnips	..	..	..	..	..	hectares	3,095	2,203	492
Livestock—									
Horses	..	..	..	..	..	number	18,391	18,358	21,034
Cattle	..	..	..	..	..	number	82,761	110,304	83,366
Sheep	..	..	..	..	..	'000	1,822	1,836	1,701
Pigs	..	..	..	..	..	number	n.a.	22,331	31,290
Wool Exported	..	..	..	..	..	'000 kg	2,669	2,657	2,058
REVENUE FROM CROWN LAND									
Revenue from Rental and Sale of Crown Land \$'000							57	166	166
TRADE									
Imports	..	..	..	..	..	\$'000	1,318	3,120	2,136
Exports	..	..	..	..	..	\$'000	1,288	2,858	1,924
Customs Revenue	..	..	..	..	..	\$'000	149	324	237

(a) At 31 December.

CHRONOLOGY

Preface

The following chronology was compiled in two sections, the period 1642 to 1929 from a document specially prepared by officers of the State Archives, and the period beginning 1930 from a search of contemporary newspapers by Bureau officers.

In the record of more recent years, it was found impossible to describe purely Tasmanian events in isolation since certain national events necessarily form a part of the history of a State within a federal system; particularly is this true with regard to some Commonwealth Government decisions, the state of the economy and industrial arbitration. On the other hand, there is the difficulty of deciding which events of a purely local character are sufficiently important to warrant inclusion. Some items have been introduced not because they are important but because they have a strong local flavour. This difficulty of selection is partly avoided by giving the record of recent years in more detail but inevitably such a policy results in matters of major and minor importance being mingled without distinction. It follows also that the second part of the chronology is limited largely to what the newspapers of the day considered important and that some events of greater significance may have escaped notice.

To round off the picture of any given year, there is a constant temptation to introduce events of world importance; as far as possible, this has been avoided except where such events had considerable local impact. In no way should the record which follows be interpreted as an 'official' chronology of the State; in actual fact, the record derives from two levels of subjective evaluation, firstly, the selection of items of importance by contemporary journalists, and secondly, the further selection of items from this narrowed field by the compilers of the chronology.

Chronology of Events from First Discovery of Tasmania

- 1642 Abel Janszoon Tasman, commanding *Heemskirk* and *Zeehan*, sighted west coast and named his discovery 'Anthony Van Diemenslandt'. Landings on Forestier Peninsula and near Blackman Bay on east coast.
- 1772 Landing of a party from Du Fresne's expedition at Marion Bay and affray with the Aborigines.
- 1773 Tobias Furneaux, in the *Adventure*, became separated from James Cook in *Resolution* and landed party at Adventure Bay.
- 1777 James Cook anchored *Resolution* in Adventure Bay on third expedition.
- 1788 William Bligh anchored *Bounty* in Adventure Bay on first breadfruit expedition.
- 1789 John Henry Cox sailed *Mercury* from Cox Bight to Maria Island.
- 1792 William Bligh, on second breadfruit voyage, anchored *Providence* in Adventure Bay. Bruny D'Entrecasteaux, commanding *La Recherche* and *L'Esperance*, discovered D'Entrecasteaux Channel and charted south-east coast.
- 1793 D'Entrecasteaux returned for further exploration of south-east coast. John Hayes, commanding *Duke of Clarence* expedition, explored Derwent River.
- 1798 Matthew Flinders and George Bass circumnavigated Tasmania.
- 1802 Nicholas Baudin, commanding *Geographe* and *Naturaliste*, explored south-east coast.
- 1803 John Bowen's party of 49 made first settlement at Risdon Cove.
- 1804 David Collins' settlement party landed at Sullivans Cove (Hobart). Aborigines killed in an affray at Risdon. Risdon settlement closed down. William Paterson's settlement party landed at Port Dalrymple (Tamar Estuary).
- 1805 Collins forced by famine to cut rations by one-third.
- 1806 Settlers moved from York Town to Launceston area (Tamar Estuary).

- 1807 Thomas Laycock's party crossed island overland from Port Dalrymple to Hobart. First Norfolk Island settlers shipped to Hobart in *Lady Nelson*.
- 1809 Governor William Bligh aboard *Porpoise* anchored in Derwent after N.S.W. mutiny and embarrassed Collins with problem of jurisdiction.
- 1810 Lieutenant-Governor Collins' death. Issue of the newspaper *Derwent Star*.
- 1811 Governor Lachlan Macquarie's first visit to Tasmania.
- 1812 Lieutenant-Governor Thomas Davey arrived. Northern settlement at Port Dalrymple made subordinate to Hobart. *Indefatigable* brought first shipload of convicts direct from England.
- 1815 Hobart and Port Dalrymple declared free ports for import of goods. Davey proclaimed martial law against bushrangers. James Kelly circumnavigated island in a whaleboat.
- 1816 First issue of *Hobart Town Gazette*.
- 1817 Succession of William Sorell as Lieutenant-Governor.
- 1818 Death of Michael Howe, notorious bushranger.
- 1820 Visit by John Thomas Bigge to conduct his enquiry into colonial administration.
- 1821 Second tour by Governor Macquarie.
- 1822 Penal settlement established at Macquarie Harbour.
- 1823 Passage of British Act 'for the better administration of justice in N.S.W. and Van Diemen's Land'.
- 1824 Inauguration of Supreme Court. Arrival of Lieutenant-Governor George Arthur.
- 1825 First Launceston newspaper, the *Tasmanian and Port Dalrymple Advertiser*, established. Tasmania constituted a colony independent of N.S.W. Establishment of appointed Executive and Legislative Councils. Departure of Governor Darling from Tasmania left Arthur with the authority of Governor (but not the title).
- 1826 Van Diemen's Land Co. sent first party to select land and establish farming operations. Appointment of Commissioners of Survey and Valuation.
- 1827 Colonial Act passed for the regulation of the colonial press—disallowed. Lieutenant-Governor received petition for trial by jury and some representation in Legislative Council.
- 1828 Passage of British Act 9 Geo. IV, cap. 83 which increased membership of Legislative Council. Martial law proclaimed against Aborigines.
- 1829 First settlement at Emu Bay (Burnie).
- 1830 George Augustus Robinson began his mission to conciliate the Aborigines. First use of juries in civil cases. Beginning of the 'Black Line', the military campaign to round up the Aborigines. First volume of *Quintus Servinton*, first novel to be published in Australia. Port Arthur established as a penal settlement.
- 1831 Approval of British Government's new land regulations discontinuing free grants of land, and replacing them with land sales.
- 1832 First shipment of Aborigines to Straits islands. Establishment of the Caveat Board to settle land disputes and to confirm titles. Maria Island closed down as a penal settlement.
- 1833 Macquarie Harbour penal settlement closed down.
- 1834 Henty brothers from Launceston became first settlers in Victoria occupying land in Portland Bay area.
- 1835 John Batman sailed from Launceston to Port Phillip as agent for the Port Phillip Association. Tasmania divided into counties and parishes. Opening of Ross Bridge. Population estimated as 40,172 persons.
- 1837 Arrival of Sir John Franklin and assumption of office as Lieutenant-Governor.
- 1838 Sessions of Legislative Council opened to the public.

- 1840 Cessation of transportation to N.S.W. and consequent increase in numbers transported to Tasmania. Population estimated as 45,999 persons.
- 1841 Assignment System of convict discipline replaced by the Probation System. Rossbank Observatory for magnetic and meteorological observations established.
- 1842 Tasmania created a separate Anglican diocese. Hobart made a city. Peak year for convict arrivals (5,329).
- 1843 Recall of Sir John Franklin and succession of Sir John Eardley-Wilmot.
- 1844 Transfer of Norfolk Island penal settlement from N.S.W. to Tasmanian control.
- 1845 Resignation of the 'Patriotic Six' members of the Legislative Council, opposing the heavy expenditure of colonial revenue for Imperial police charges.
- 1846 Recall of Eardley-Wilmot. Foundation of the Launceston Church Grammar and The Hutchins Schools.
- 1847 Succession of Sir William Denison. The Lieutenant-Governor re-appointed the 'Patriotic Six', dispensing with those who had replaced them as Legislative Councillors.
- 1848 Tasmania now the only place of transportation in the British Empire.
- 1850 Foundation of the Anti-Transportation League. Population estimated as 68,870 persons.
- 1851 British Act 'for the better governing of the Australian colonies' reached Tasmania; provided for limited representative government. First elections for 16 non-appointed members of the Legislative Council.
- 1852 First payable gold found near Fingal. Elections held for first municipal councils in Hobart and Launceston.
- 1853 Arrival of last convicts to be transported.
- 1854 Bad floods throughout colony. Passage of Bill establishing responsible government.
- 1855 Succession of Sir Henry Fox Young; title now Governor. British Government approved Constitution Bill.
- 1856 Name of Van Diemen's Land changed to Tasmania. Opening of new bi-cameral Parliament with W. T. N. Champ leading first government in the House of Assembly. Re-organisation of Police Department.
- 1858 Council of Education set up. *Rural Municipalities Act* passed.
- 1859 Charles Gould appointed to make geological survey of western Tasmania. Telegraph established as link with Victoria.
- 1860 Population estimated as 89,821 persons.
- 1861 Succession of Colonel Thomas Gore Browne. Telegraph cable to Victoria failed.
- 1862 Promotion of scheme for a railway between Launceston and Deloraine.
- 1864 Arrival of first successfully transported salmon ova.
- 1868 Visit by Alfred, Duke of Edinburgh. Bill passed making primary education compulsory.
- 1869 Succession of Charles Du Cane. Death of William Lanne, thought to be last male full-blood Aboriginal. Death of Sir Richard Dry. New cable laid to Victoria.
- 1870 Withdrawal of remaining Imperial troops.
- 1871 Opening of Launceston-Deloraine railway. Tin discovered at Mt Bischoff.
- 1872 Contract concluded for building Main Line Railway.
- 1873 Main Line Railway construction began. Start of economic recovery.
- 1874 Riots in Launceston in protest at rates levied for Launceston-Deloraine railway.
- 1875 Succession of Sir Frederick Weld.
- 1876 Race meetings established at Elwick. Gold nugget worth \$12,200 found at Nine Mile Spring. Death of Trugannini, thought to be last female full-blood Aboriginal. Main Line Railway opened for traffic.

- 1877 Port Arthur closed down as a penal settlement.
- 1878 Increased activity in exploration of West Coast.
- 1879 Settlement of constitutional issue known as the 'Hunt Case'. Rich lode of tin discovered at Mt Heemskirk.
- 1880 First telephone in Tasmania with line from Hobart to Mount Nelson Signal Station.
- 1881 Purchase of three diamond drills by government for hire to private prospectors. Succession of Sir George Strahan.
- 1882 Increased prospecting on West Coast.
- 1883 Discovery of the 'Iron Blow' at Mt Lyell.
- 1885 Russian war scare followed by activity in improvement of defences. Formation of Mt Lyell Prospecting Association.
- 1886 Adye Douglas, Tasmanian Premier and President of the Federal Council, spoke in favour of Australian republicanism.
- 1887 Succession of Sir Robert Hamilton.
- 1890 Establishment of University of Tasmania.
- 1891 Collapse of Van Diemen's Land Bank; deep economic depression.
- 1892 Mt Lyell Mining Co. established.
- 1893 Succession of Viscount Gormanston.
- 1896 Establishment of Tattersalls Lottery by George Adams.
- 1897 Record shade temperature of 40.6° Celsius (105.5°F) at Hobart on 30 December.
- 1898 Serious bush fires. Polling four to one by Tasmanians in favour of Federation.
- 1899 Departure from Hobart of *Southern Cross* (Borchgrevinck) expedition to Antarctic.
- 1900 Departure of Tasmanian contingents to fight in the Boer War.
- 1901 Proclamation of the Commonwealth read. Polling for first elections to Federal Senate and House of Representatives. Succession of Sir Arthur Havelock.
- 1903 Celebration of 100 years' settlement cancelled because of smallpox epidemic in Launceston. Suffrage extended to women.
- 1904 Succession of Sir Gerald Strickland at reduced salary.
- 1905 Experiments in wireless telegraphy between Tasmania and the mainland and between Tasman Island and Hobart.
- 1906 Visit by Ramsay MacDonald (later British Prime Minister).
- 1907 New Public Library opened; built with gift from Andrew Carnegie.
- 1909 Succession of Sir Harry Barron. Potato crop wiped out by Irish blight. State's first Labor Government under John Earle.
- 1912 Disasterous fire at North Lyell Mine, Queenstown.
- 1913 Succession of Sir William Ellison-Macartney.
- 1914 First aeroplane flight in Tasmania. Departure of first Tasmanian contingent to fight in Great War. Second State Labor Government formed under John Earle. Formation of Hydro-Electric Department.
- 1915 Serious bushfires.
- 1917 Establishment of electrolytic zinc works at Risdon and of Snug carbide works.
- 1918 End of Great War.
- 1919 First export of frozen meat.
- 1920 Visit by Edward, Prince of Wales. Purchase of site for Cadbury's chocolate factory at Claremont.
- 1921 Population 213,780 persons (Census).
- 1922 Completion of Waddamana power station.

- 1924 First superphosphate manufactured by Electrolytic Zinc Co. at Risdon.
- 1925 Discovery of osmiridium fields at Adamsfield.
- 1927 Enquiry into proposed bridge over Derwent. Visit by Duke and Duchess of York.
- 1929 Serious floods throughout island. Establishment of automatic telephone system in Hobart. Beginning of economic depression.
- 1930 Export prices fell to half 1928 level. Australian pound devalued so that £ sterling equalled £A 1.25 (\$A 2.50).
- 1931 Depression continued—10 per cent cut in Federal basic wage. Initiation of austere Premier's Plan. Conversion loan to reduce rate on internal Federal debt by 22½ per cent. Census of population deferred due to economic crisis.
- 1933 Commonwealth Grants Commission appointed to enquire into affairs of claimant States.
- 1934 Labor Ministry of A. G. Ogilvie first in 35 years of continuous Labor Governments. Second phase of hydro-electric development commenced at Tarraleah and Butlers Gorge.
- 1936 Tasmania linked with Victoria by submarine telephone cable.
- 1937 Epidemic of poliomyelitis. Economic recovery evidenced by \$0.50 'prosperity' loading added to Commonwealth basic wage.
- 1938 Paper mill using native hardwoods established at Burnie. First turbines began operating at Tarraleah power station.
- 1939 Outbreak of World War II.
- 1940 Tasmanians sailed for Middle East with Australian 6th, 7th and 9th Divisions.
- 1941 Newsprint production began at Boyer on the Derwent. Tasmanians sailed for Malaya with Australian 8th Division.
- 1942 Uniform Federal income tax commenced.
- 1943 The floating-arch Hobart Bridge opened for traffic.
- 1944 Pay-as-you-earn income taxation introduced from 1 July.
- 1945 End of World War II.
- 1946 Cessation of man-power controls. Rejection by Legislative Council of bill to grant Federal Government price control powers for three years. Crash of DC3 airliner at Seven Mile Beach with 25 deaths.
- 1947 Court action to stop bank nationalisation by Federal Government. Demobilisation of forces completed. 'Displaced persons' commenced arriving from Europe.
- 1948 Forty-hour week awarded to most workers from 1 January. Tasmanians voted 'No' almost two to one in referendum denying Federal Government power over prices and rents. Legislative Council's denial of supply forced dissolution of House of Assembly—Cosgrove ministry returned to power.
- 1949 Compulsory X-ray introduced in fight against tuberculosis. Clark Dam at Butlers Gorge completed. Theatre Royal purchased by the Government. Sterling devalued by 30.5 per cent and Australian pound similarly devalued.
- 1950 End of Federal petrol rationing. Dissolution of House of Assembly granted by Governor and Cosgrove ministry returned to power. *Communist Party Dissolution Bill* passed by Federal Parliament.
- 1951 *Communist Party Dissolution Act* declared invalid by High Court. Double Dissolution of Federal Parliament. Referendum to give Commonwealth powers in regard to communism—'No' vote prevailed although Tasmanians expressed slight preference for 'Yes'.
- 1952 Single licensing authority established for hotels, clubs, etc. State free hospital scheme ceased. Rejection by Legislative Council of bill to give State aid to private schools.
- 1953 In September, Court abandoned system of quarterly adjustment of Federal basic wage. State Wages Boards decided to follow Federal Court in suspension of quarterly basic wage adjustments.

- 1954 Royal visit by Queen. Menzies government re-elected. Bill passed to resolve deadlocks in House of Assembly. Foundation of the Metropolitan Transport Trust.
- 1955 Uranium ore discovered at Mt Balfour and Royal George. Bell Bay aluminium plant officially opened. Cosgrove ministry returned to power without effective majority. Australia's first capital city parking meters installed in Hobart. Trevallyn and Tungatinah schemes officially opened. Anti-Communist Labor Party (later D.L.P.) formed in State. Menzies government returned.
- 1956 State Wages Boards' restoration of 'cost-of-living' adjustments effective from 1 February. State Wages Boards again suspended cost-of-living adjustments. Sir Ronald Cross granted dissolution of House of Assembly. Labor Party returned to power in State. Official opening of E.Z. Co's sulphate of ammonia plant. Centenary of self-government celebrated.
- 1957 Legislative Council rejected bill giving aid to private schools. First space satellites—Sputniks I and II—seen over State. Centenary of Hobart's incorporation celebrated.
- 1958 Establishment of Rivers and Water Supply Commission. Mr Cosgrove succeeded by Mr Reece as Premier. Menzies government re-elected. Public Service Tribunal established as an industrial authority. Armed Forces Food Science Establishment commenced operations at Scottsdale.
- 1959 First election to fill 35 seats in House of Assembly; Labor re-elected. New Commonwealth system of grants reduced claimant States to two—Tasmania and Western Australia. *Princess of Tasmania* commenced roll-on roll-off ferry service Melbourne to Devonport.
- 1960 Liapootah power station commissioned. Zeehan-Strahan railway closed. Inland Fisheries Commission created. First Tasmanian telecast. Negotiations begun for sale of Commonwealth interest in Bell Bay aluminium plant. Australian 'give way to the right' rule introduced.
- 1961 *William Holyman*, cargo container vessel, entered Bass Strait trade. Legislative Council rejected equal pay legislation. Menzies government re-elected.
- 1962 Catagunya turbines began producing electricity. State Wages Boards granted three weeks' annual leave. State subsidies announced for municipal fluoridation schemes. Closure of Mt Lyell Railway, Queenstown to Strahan. West Derwent Water Scheme inaugurated.
- 1963 Abolition of State entertainments tax. Federal Court increased margins 10 per cent and granted three weeks' annual leave. Universities Commission recommended medical school for Tasmanian University. Menzies government returned with substantial majority.
- 1964 T.A.A. commenced intrastate air services. Alginate plant began operations on east coast. Labor re-elected at State elections. Federal Court reduced long service leave qualifying period from 20 to 15 years. Tasman Bridge opened for traffic and Hobart Bridge towed away. Hobart's water supply fluoridated. Glenorchy raised to city status.
- 1965 *Empress of Australia* sailed from Sydney on first voyage to Hobart. Provisional driving licences introduced. Dental nurse scheme for schools announced. D'Entrecasteaux scallop beds closed for 1965 season. New Shops Act extended Saturday morning closing to Hobart's eastern suburbs.
- 1966 Decimal currency introduced 14 February. Burnie-Launceston co-axial cable completed. \$62m Savage River iron-ore agreement signed. Equal pay for certain State Public Service females. Breathalyser tests approved for use by police. Holt Liberal Government returned with record majority. S.T.D. extended to Tasmania.
- 1967 Bush fire disaster of 7 February resulted in 62 deaths and over 1,000 houses destroyed. Petition presented against proposed flooding Lake Pedder as part of Gordon hydro-electric scheme. Federal Arbitration Commission abolished basic wage and substituted total wage concept; awarded \$1.00 increase to males and females. Mt Cleveland tin mining town of Luina completed. Tasmanian State Wages Boards retained basic wage in their awards. H.E.C. water reserves only 16 per cent of normal; introduction of daylight saving and power rationing to conserve power. First iron-ore slurry pumped from Savage River to Port Latta. Deadlock between two Houses ended legislative control of shopping hours.

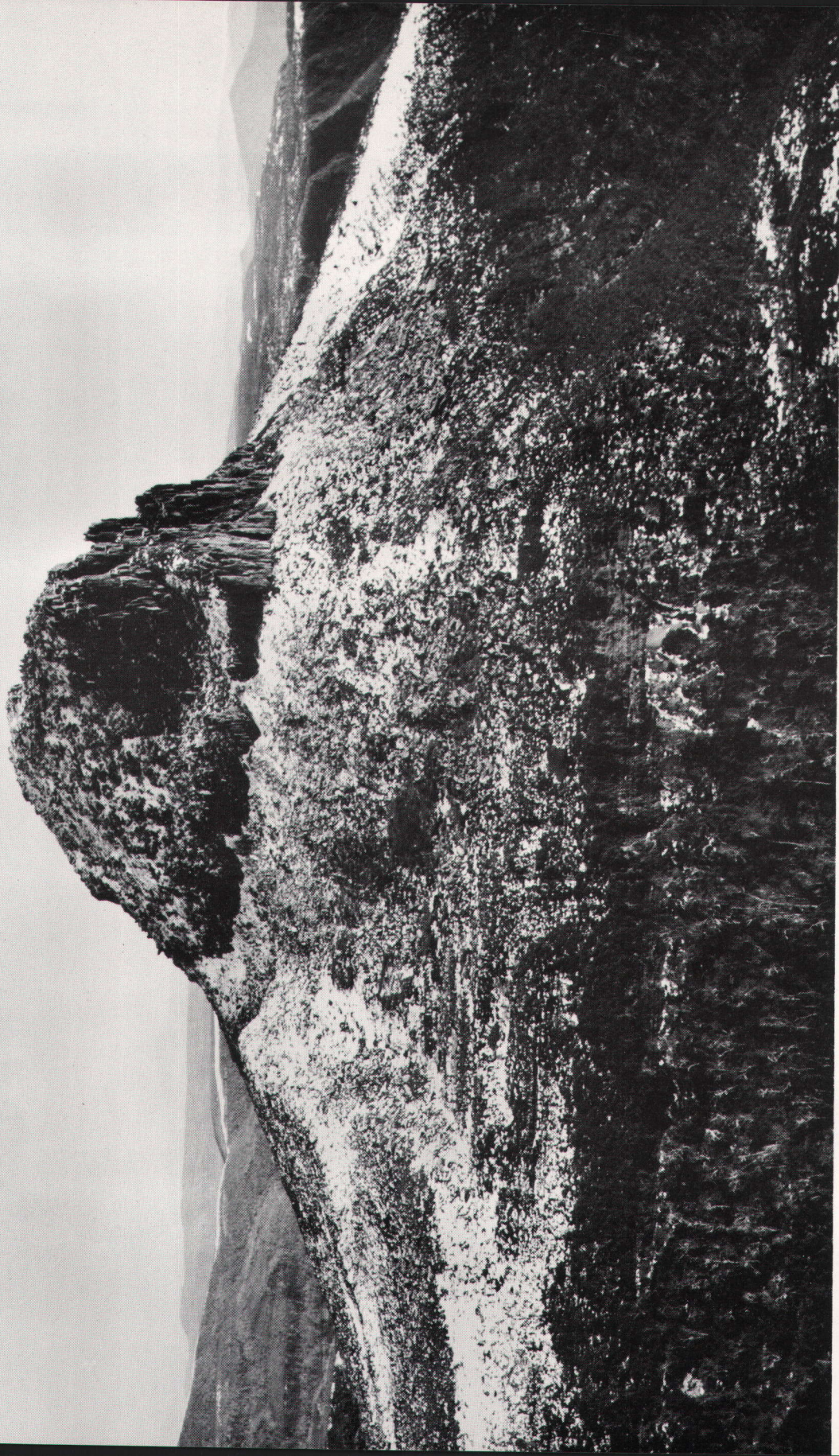
- 1968 Royal Hobart Hospital acquired State's first artificial kidney machine. H.E.C. Repulse dam on Lower Derwent completed. Asthma survey of school children undertaken. Federal dairy industry reconstruction announced. Batman Bridge across lower Tamar opened. Federal Government subsidy for apples and pears exported to U.K. and other countries which devalued their currency in 1967. Tasmanian Public Service Tribunal ruled women teachers entitled to equal pay (by 1972 in stages as prescribed in State Act). Full adult suffrage for Legislative Council elections from 1 July 1969. Capital punishment abolished. 'Yes' vote prevailed in 'Casino Referendum'; *Wrest Point Casino Licence and Development Bill* passed by Legislative Council.
- 1969 Parangana Dam (Mersey-Forth scheme) completed. North-West General Hospital opened at Burnie. Tamar Regional Valley Planning Authority formed. State election resulted in 17 A.L.P., 17 Liberals, one Centre Party (Mr Lyons). Mr Lyons combined with Liberals to form coalition government; ended 35-year Labor rule in Tasmania. Full Bench of Federal Arbitration Commission Granted equal pay to females performing equal work; female salaries to be raised to male salaries in stages. U.S. astronaut took man's first step on the moon on 21 July. Launceston Teachers College officially opened. Narrow Federal election victory to Liberal-Country Party Coalition; Tasmanian representation four A.L.P., one Liberal. Gordon River power station diversion tunnel completed. Copper smelter at Mt Lyell closed; concentrate sent to Japan and Port Pirie (S.A.) for treatment.
- 1970 \$1m bulk cargo berth completed at port of Burnie. Tasmanian primary schools to begin teaching metric system. Taroona Marine Research Laboratory officially opened. Broad-band telecommunications link established between Smithton and King Island (provided telephone and television relay facilities). High Court ruling invalidated Victorian and W.A. receipts tax. First pyrites railed from Rosebery to Burnie sulphuric acid plant. Work commenced at Selfs Point on second stage of Hobart's sewage treatment scheme. E.Z. Co. to establish \$6.3m residue treatment plant. No mining exploration licences to be granted for Macquarie Island (flora and fauna reserve). Royal visit. Federal ban on export of snoek (barracouta) lifted. Parliament legislated to introduce permanent daylight saving from last Sunday of October to second Sunday in March. Microwave telecommunication link with W.A. completed allowing direct television relays across the continent; Tasmanians able to make S.T.D. calls to Perth W.A. First shipment of export containers from Hobart on feeder ships to link up with Australia-Europe container service. First double kidney transplant performed at Royal Hobart Hospital. State Premiers accepted Tasmanian formula for reimbursement in lieu of receipts duty. Construction of oil-poppy processing plant commenced at Latrobe. Board of inquiry into Tasmanian fruit industry recommended single marketing authority for export apples and pears. Completion of removal of Garden Island from Tamar River enabling larger vessels to enter river.
- 1971 Over-the-counter sale of bromides to be banned in Tasmania. All new cars registered in Tasmania after 1 January 1971 to have seat belts fitted to front and rear seats; removal of seat belts from cars registered on or after 1 January an offence. Centenary celebrations for Tasmanian railways. University of Tasmania to limit future student intakes. Tasmania to participate in Federal rural reconstruction scheme. State Government to meet full costs of freeways and expressways; local government authorities to save considerable sums previously spent as their share of the costs. Port of Launceston Authority's current port improvement scheme completed. Mr William McMahon succeeded Mr John Gorton as Prime Minister. \$25m A.P.P.M. Ltd Wesley Vale paper plant opened. \$9m expansion programme at Comalco (Bell Bay) completed; production capacity raised to 94,000 tons per annum making it the largest aluminium smelting plant in Australia. Currie (King Island) \$581,000 hospital complex commenced. Australia's oldest telephone trunk exchange, New Norfolk, closed. A.N.M. announced expansion programme for Boyer to lift annual production to 200,000 tons of newsprint. End of shipping strike; A.C.T.U. to give Tasmania special consideration in event of future shipping strikes. Victoria Bridge at Devonport officially opened. Federal Government to provide financial assistance for Bell Bay rail link. Census of Population—Tasmania 390,413 persons.

- 1972 'On-the-spot' traffic tickets introduced. Argentine Ant infestation discovered at Launceston. K. O. Lyons resigned cabinet portfolios and ended Liberal-Centre Party Coalition. House of Assembly elections—Labor returned with landslide victory (A.L.P., 21; Liberal Party, 14). Mr Bethune resigned as leader of State Parliamentary Liberal Party and Mr Bingham elected to the position. A.P.P.M. Long Reach woodchip plant commenced production. National Wage Case—total wage increased by \$2.00 and minimum wage for adult males by \$4.70 per week. English Red Fox (prohibited animal) caught in rabbit trap at Riverside (western shore of Tamar). Waterside workers were awarded 35-hour week. House of Assembly passed a Bill lowering the age of majority to 18 years. On 24 June record low temperatures recorded throughout the State; Hobart recorded temperature of -2.8°C . A.N.L. vessel *Princess of Tasmania*, which inaugurated roll-on roll-off ferry service to Tasmania in 1959, made her final trip to Tasmania. The House of Assembly terms fixed at five years for present term and four years thereafter. The Victorian Government banned sale of flake—seriously affected Tasmanian shark fishermen. C.S.I.R.O. reported excessive levels of zinc in oysters from Ralphs Bay at the entrance to the Derwent. Mt Lyell Mining and Railway Company Ltd fired last shot at its West Lyell Open-cut Mine—ended 37-year life of the open-cut. (Company returned to underground mining for most of its ore.) Metric system of recording temperature introduced on 1 September. First export shipment of woodchips made from A.P.P.M. Long Reach plant. State Government announced cigarette and tobacco tax. King Islands' Naracoopa rutile mine re-opened by Buka Minerals (N.L.). Commonwealth Government sponsored anti-smoking campaign commenced. Riots at Risdon Gaol—vandalism caused extensive damage. Government announced intention to introduce off-course T.A.B. Federal elections—A.L.P. returned to power (after 23 years as the Federal Opposition). Representation in the House of Representatives was: A.L.P., 67; Liberal Party, 38; Country Party, 20. Tasmania returned five A.L.P. members. Fossil of 300 million years old dragon fly discovered in Hellyer Gorge (west coast area). Mining company refused licence to mine limestone in scenic Precipitous Bluff area of southern Tasmania. National Wage Case decision handed down: (i) Commission agreed to apply the principle of equal pay for work of equal value in all of its awards; (ii) no increases to the total or minimum wages granted—further considerations of these aspects deferred until March 1973. Trial dumping at sea of jarosite waste from Electrolytic Zinc Company's Risdon plant carried out. Challenge to Tasmanian cigarette and tobacco tax taken to High Court. Australian dollar revalued by 7.05 per cent. No road deaths in Christmas holiday period in Tasmania. Specialists from U.K. Gaming Board arrived to train Tasmanian casino inspectors.



Federation Peak, South-west Tasmania

[K. Antonysen]



Barn Bluff, Cradle Mt.-Lake St Clair National Park

Chapter 2

PHYSICAL ENVIRONMENT

GENERAL DESCRIPTION

Use of Metric Units

In this Chapter, and also Chapter One, measurements (distances, areas and climatic data) are given in metric units. A list of units, their abbreviations and conversion factors, is given in the following table:

Selected Metric Units: Abbreviations and Conversion Factors

Metric Unit	Abbreviation	Conversion Factors	
		Imperial to Metric Units	Metric to Imperial Units
Distance—			
millimetre	mm	1 inch=25.4 mm	1 mm=0.03937 inches
centimetre	cm	1 inch=2.54 cm	1 cm=0.39370 inches
metre	m	1 foot=0.3048 m	1 m=3.28084 feet
kilometre	km	1 mile=1.609344 km	1 km=0.539957 miles
Area—			
hectare	ha	1 acre=0.404686 ha	1 ha=2.47105 acres
square kilometre ..	km ²	1 sq. mile=2.58999 km ²	1 km ² =0.386102 sq. miles
Temperature—			
°Celsius (a)	°C	1° of F=0.555556 of °C	1° of C=1.8000 of °F
Rainfall—			
millimetre	mm	1 inch=25.4 mm	1 mm=0.03937 inches
Wind Speeds—			
kilometres per hour ..	km/h	mph=1.609344 km/h	1 km/h=0.539957 miles per hour
Barometric Pressure—			
millibar (b)	mb	1 inch Hg=33.9 mb	1 mb=0.0295 inch Hg

(a) To convert a temperature reading from: (i) °F to °C—use the formula $^{\circ}\text{C} = 5/9 \times (^{\circ}\text{F} - 32)$; (ii) °C to °F—use the formula: $^{\circ}\text{F} = \frac{9 \times ^{\circ}\text{C} + 32}{5}$

(b) Hg = mercury.

Location and Area

The State of Tasmania is a group of islands lying south of the south-east corner of the Australian mainland; the major island is called Tasmania and the more important of the lesser islands include King, Flinders and Bruny. Roughly shield shaped with the greatest breadth in the north, Tasmania extends from 40° 38' to 43° 39' South latitude and from 144° 36' to 148° 23' East longitude. The coastline is bounded by the Indian Ocean on the west and the Pacific Ocean on the east while Bass Strait separates the island from the Australian mainland by approximately 240 kilometres. Macquarie Island, a part of the State, is situated in 54° South latitude and is bound by the Southern Ocean.

The area of the whole State, including the lesser islands, is 68,331 square kilometres or about 0.9 per cent of the area of the Australian Commonwealth (7,686,854 square kilometres); it is just under one-third the size of Victoria, the smallest mainland State.

Australia, extending as it does well north of the Tropic of Capricorn, and with much of its area in the zone of the sub-tropical anti-cyclones, is basically a warm, dry continent. Tasmania is in the temperate zone and practically the whole island is well watered with no marked seasonal concentration; there are no deserts or drought areas as found extensively on the adjacent continent. Because Tasmania is the most southern State of the Commonwealth, there is a tendency to think of it as being close to the Antarctic but its latitude is matched, in the northern hemisphere, by that of Madrid (Spain) and Pittsburgh (U.S.A.). In addition, as Tasmania is an island it is sheltered from the extremes of heat and cold experienced in these two centres. The effect of its insular position is illustrated by the variation between summer and winter mean temperatures in coastal towns—this rarely exceeds 8° Celsius. Comparing Hobart (Tasmania) with Melbourne (Victoria), mean maxima are some 3° Celsius warmer and mean minima 1.5° Celsius warmer in the Victorian capital.

Apart from the Great Dividing Range in the east, Australia is predominantly a land of low plateaux and plains with little relief. By way of contrast, Tasmania could legitimately be called the island of mountains, since it has the largest proportion of high country to its total area, compared with the other States. The distinctive feature of the island is not so much the size of the mountains—few exceed 1,500 metres—but rather the frequency with which they occur. The British Admiralty Pilot Book describes Tasmania as 'probably the most thoroughly mountainous island on the globe'.

Principal Physical Features

The following table lists the principal mountains, lakes and rivers of Tasmania (for their location see the next map):

Principal Physical Features

MOUNTAINS

Name	Height (Metres)	Name	Height (Metres)
Mt Ossa	1,617	Stacks Bluff	1,527
Legges Tor	1,573	Mt Gould	1,491
Barn Bluff	1,559	Mt Jerusalem	1,458
Mt Pelion West	1,554	Mt Pelion East	1,451
Cradle Mountain	1,545	Clumner Bluff	1,449

LAKES

Name	Area (Square Kilometres)	Name	Area (Square Kilometres)
Lake Gordon (a)	272	Lake King William (a)	41
Lake Pedder (b)	241	Lake Echo (c)	41
Great Lake (c)	158	Lake St Clair	28
Arthurs Lake (c)	65	Lake Augusta (c)	21

RIVERS

Name	Length (Kilometres)	Name	Length (Kilometres)
Derwent	148	Huon	121
South Esk (d)	145	Arthur	113
Gordon	129	Pieman	106

(a) Man-made.

(b) Man-made—inundated the much smaller natural Lake Pedder.

(c) Natural lake enlarged by dam(s).

(d) From source to confluence with North Esk; at this point the river becomes known as the Tamar. If the Tamar is included in the length of the South Esk a further 56 km is added to its length.

[illegible]

Population Distribution

With a population of about 395,000, Tasmania is still thinly populated although its density of six persons per square kilometre is exceeded only by Victoria among the Australian States. Asian comparisons are Japan, 280 persons per square kilometre; Indonesia, 80; and People's Republic of China, 77.

A marked characteristic of the mainland States of the Commonwealth is the very high concentration of population in their respective metropolitan areas, Brisbane providing the only example where this concentration falls below 50 per cent of the State's total population. In contrast, the Tasmanian population is concentrated in two main areas: (i) Urban Hobart, with about 32 per cent; and (ii) Urban Launceston with about 16 per cent. This deviation from an Australian pattern is partly explained by the relative proximity of Launceston to the principal mainland markets. However, terrain and climate have also had a large influence on the distribution of the State's population. A convenient way to summarise, in approximate terms, the present pattern of settlement is to imagine three circles of 40 kilometre radius centred on Hobart (representing the south-east), Launceston (the north) and Ulverstone (the north-west): (i) with Hobart as centre, 43 per cent of the Tasmanian population is located within the 40 kilometre circle; (ii) with Launceston as centre, 21 per cent; (iii) with Ulverstone, 18 per cent. Since all circles are exclusive of each other, these three defined areas together contain more than 82 per cent of the State's population and this fact justifies the generalisation that the main settlement is in the south-east, the north and the north-west. Residual population not included in the three defined areas is mainly located in the more distant north-west and north-east, in the midlands between Hobart and Launceston, on King and Flinders Islands and along the east coast. Even an 80 kilometre circle with Queenstown as centre includes only three per cent of the State's population and here the activity is mining, not farming, since this is predominantly an area of high mountains and heavy rainfall. The south-west is almost completely uninhabited except for isolated prospectors and the Hydro-Electric Commission village of Strathgordon; the central plateau, where the main activities are summer grazing and hydro-electric power generation, is very sparsely populated.

Economic Development

In the nineteenth century, the basic economic activities were farming, mining, forestry and fishing (with whaling of prime importance in the first half of the century). In the twentieth century, evolution of secondary industry was at first inhibited by two major factors—the small local market and the relative advantage enjoyed by competitors located closer to the principal mainland markets. There were, however, two geographical features of the island which could be utilised to offset these disadvantages, namely a mountainous terrain and an assured rainfall. Taken together, these two factors mean cheap electric power (if the necessary investment is made in dams and generating stations). It has been estimated that Tasmania has at least half of the total Australian hydro-electric potential. As a result of continuous power development over the last three decades by the Hydro-Electric Commission, turbines in use can now generate 1.31 million kilowatts and work is still proceeding on harnessing fresh sources. Development of the Gordon River power potential is in an advanced stage and with completion of this scheme in 1976 total generating capacity will be increased to almost 1.8 million kilowatts. The abundance of cheap electric power has led to the establishment of a number of major industrial plants and has transformed the island's economy, which was once heavily dependent on primary industry.

PHYSIOGRAPHY

Introduction

Tasmania is an island of mountains and is unique among Australian States in being predominantly influenced by polar maritime air masses. From the point of view of settlement and development, these two factors have combined to create assets against which must be weighted certain liabilities. The island, a mere 290 kilometres from north to south and 305

kilometres from east to west, has a wide variety of mountains, plateaux and plains, of rivers, lakes and tarns, of forest, moorland and grassland, of towns, farms and uninhabited (and virtually unexplored) country. The temperate maritime climate partly explains Tasmania being called the most English of all States but other factors operate to heighten the comparison—the pattern of agricultural settlement with orchards, hedges and hopfields; the Lake Country; the early freestone architecture still common in the east; the roads and villages dotted with oaks, elms and poplars. Nature and the early settlers have provided the assets for a flourishing tourist industry which is currently being vigorously developed. Assured rainfall and mountain storages have also given birth to massive development of hydro-electric power and, indirectly, to industry. The growth of forests, too, is promoted by suitable rainfall and temperature, and this forms the basis for industries such as timber-milling, newsprint and other paper production and wood-chipping.

The mountainous nature of the island is confirmed by survey which shows six features exceeding 1,500 metres, 28 exceeding 1,220 metres and a further 28 exceeding 915 metres. The highest mountain is Mt Ossa (1,617 metres) some 16 kilometres north-west of Lake St Clair, and north-west again from this peak lie Mt Pelion West (1,554 metres), Barn Bluff (1,559 metres) and Cradle Mountain (1,545 metres); the furthest distance, 24 kilometres, is from Mt Ossa to Cradle Mountain. In the Ben Lomond area, the principal features are Legges Tor (1,573 metres) and about 10 kilometres south, Stacks Bluff (1,527 metres). Each of these mountainous regions and a number of others have been set aside as National Parks, two of which, Ben Lomond and Mt Field, are renowned for winter sport.

Water Resources and Rainfall

Fresh-water navigation has played very little part in Tasmania's development, the rivers being too fast-running, shallow or short. Of the four major ports, three are located on tidal estuaries—Hobart on the Derwent; Launceston on the Tamar; Devonport on the Mersey (Burnie has built a port, on the open sea, protected by breakwaters). Rivers, however, are significant for three reasons: (i) use of headwaters for electricity generation; (ii) domestic and industrial water supply; (iii) irrigation. Hobart for example draws much of its water supply direct from the upper Derwent River without use of a dam and the flow is adequate to serve a population at least 10 times greater than that at present. The development of hydro-electric power has been based on full utilisation of the sources and tributaries of the Derwent with a chain of power houses stretching from Poatina on the Great Lake to Meadowbank only 51 kilometres from Hobart. At Launceston, too, the waters of the South Esk have been harnessed at Trevallyn. In the north-west, the Mersey-Forth Scheme exploits the Fisher, Mersey, Wilmot and Forth Rivers in a development spread over approximately 2,070 square kilometres. This does not exhaust the possibility of future development, as work on the Gordon-Serpentine system in the south-west is proceeding, a scheme based on the Pieman River system is planned, and the Franklin and King Rivers are considered to have substantial potential for power development.

To obtain a true perspective, it should be appreciated that large areas of the State cannot be cultivated because there is too much rainfall (in contrast with the mainland of Australia where often the reverse situation applies). Further, the mountainous terrain and accompanying high-land climate have restricted farming to relatively small areas of suitable country, mainly river valleys, coastal plains and the lower plateaux. In 1972, farm statistics showed that 38.1 per cent of the State's area was occupied by rural holdings. Only 2.6 per cent of the area of rural holdings was under crop and a further 32.7 under sown pasture. The remaining 64.7 per cent of rural holdings included bush runs, uncleared scrub or possibly land unsuitable for any rural purpose at all. A high proportion of the State's area not included in rural holdings is composed of forests, national parks and lakes.

Physiographic Regions

To explain the pattern of settlement, it is necessary to isolate the various physiographic regions of the State as follows:

Central Plateau: The main feature is a relatively undissected, dolerite-capped plateau sloping generally south-eastward from an average level of 1,065 metres in the north to 610 metres in the south, and drained almost wholly by the Derwent system. The northern and eastern boundaries

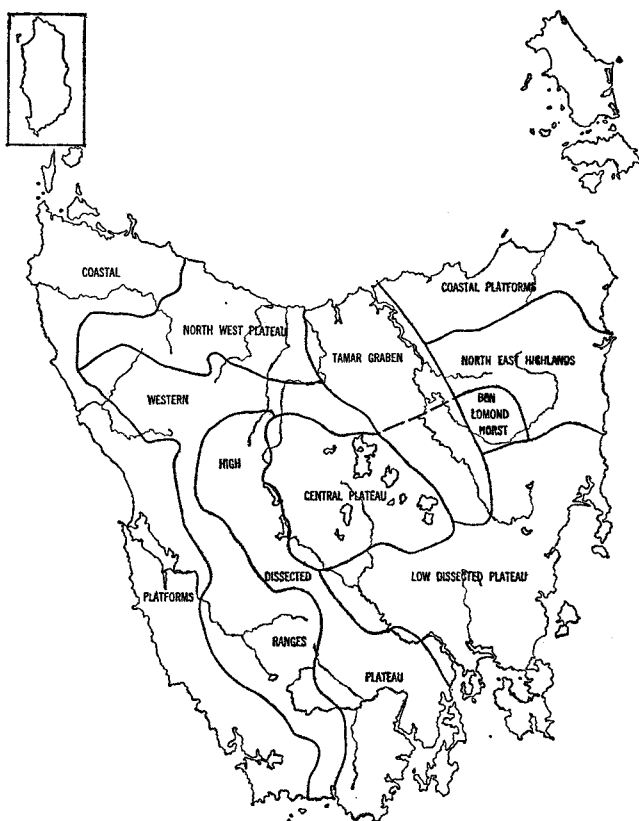
of the Plateau are the Great Western Tiers (paradoxically named since they lie in the central north of the island). This is known as the Lake Country of the island and is the chief source of hydro-electric power.

High Dissected Plateau: West of Lake St Clair, dolerite caps steeply-tilted sediments and the plateau is much dissected; it comprises a series of peaks and broken ridges. The coastlands in the extreme south of the region are rugged but in the D'Entrecasteaux Channel and Huon River areas, narrow coastal belts have been devoted to specialised agriculture.

Western Ranges: The high dissected plateau is bound by a mountainous series of ranges running parallel to the west coast and in this region are located the principal mines of the State. The south of the region is completely uninhabited except for construction workers on the Gordon power scheme.

Western Coastal Platforms: Throughout almost the entire length of the west coast, an up-lifted and much dissected peneplain slopes westward from about 275 metres to end abruptly in cliffs more than 30 metres high. In the south of this region, superhumid button grass plains predominate, and the area is uninhabited. On the coastal plain south of the Arthur River, however, dairy cattle are wintered on agistment runs, while north of the river dairying begins to appear and swamps formed by recent emergence have been cleared for farming.

North-West Plateau: North of the Western Ranges lies a plateau averaging nearly 610 metres and important mainly for forestry; the coastlands derive mainly from basalt, giving rise to intensive mixed farming based on dairying, potatoes and crops for canning and freezing, such as peas and beans.



(The above regions derive from a classification by J. L. Davies, M.A., Ph.D., University of Tasmania.)

Tamar Graben: This graben (rift valley) is the largest plain and the leading agricultural and pastoral district in the State; it ends in the drowned inlets of the Tamar and Mersey estuaries and Port Sorell in the north.

North-East Coastal Platforms: This region consists of undulating lowland but the soils are acidic and the land is used only for grazing.

North-East Highlands and Ben Lomond Horst: This region comprises mostly uplifted remnants of old fold mountains dominated by the 1,525 metre dolerite-capped plateau horst of Ben Lomond, an outlier of the Central Plateau. Here agriculture is largely confined to small basalt-derived basins. Some minerals are worked.

Low Dissected Plateau: In the south-east lies a low dissected dolerite plateau averaging perhaps 365 metres and used mainly for grazing. The northern coastlands of this region are narrow and also devoted to sheep, but the southern coastland is important for its specialised agriculture. At the extreme south of the region is the drowned estuary of the Derwent and the Tasman and Forestier Peninsulas.

DESCRIPTION OF STATISTICAL DIVISIONS

Introduction

Earlier in this Chapter the State of Tasmania was briefly described by analysing its terrain in terms of physiographic regions. For statistical purposes, the State is also analysed in divisions but these do not necessarily coincide with physiographic regions, one reason being that the former are basically groupings of whole municipalities. The traditional Tasmanian statistical divisions, in use for over 50 years, were exposed to searching scrutiny in 1971 and the decision was taken to introduce a new structure, to be applied to statistics in respect of periods commencing on or after 1 July 1972.

History of Statistical Divisions

The grouping of administrative areas into divisions for statistical purposes can be found in annual volumes of the *Statistics of Tasmania* dating back to the nineteenth century. The administrative areas included: police districts; registration districts; electoral districts; and municipalities. The *Local Government Act 1906* provided a basis for the whole State coming under uniformly constituted local government and gradually the divisional grouping of administrative areas was confined, in official statistics, to municipalities.

In 1919, groupings appeared very similar to those still used in 1971; in some series Hobart, Launceston and Glenorchy were separately specified as components of an 'Urban Division' distinct from the region in which each was located.

The basis for these 1919 groupings can only be inferred since no specific criteria was specified in the records. The Western Division clearly combined the 'west coast' mining municipalities into one entity; the Southern seemed to be based on orcharding, small fruit and hop areas; while the South Eastern was allied more with pastoral and grazing areas. In short, the main determinant may well have been similarity of rural activity (with the Western Division a special case because of its mining activity).

After the 1966 population census, a new division was formed with the title Hobart Division, comparable with similar capital city divisions in other States; its boundaries were drawn wide enough to encompass the expected expansion of the inner urban area for the next 20 or 30 years. Apart from this, the broad divisional structure in 1971 was very much the same as it had been in 1919.

In 1972 a new statistical division structure, using the three principal urban centres of influence as a basis, was designed. The three urban centres and their area of influence were: (i) Hobart—south and south-east; (ii) Launceston—north and north-east; and (iii) Burnie-Devonport—north-west and west. The following divisional structure was then adopted: (i) with

Hobart as focus—Hobart and Southern Divisions; (ii) with Launceston as focus—Northern Division split into Tamar and North Eastern Sub-divisions; and (iii) with Burnie-Devonport as focus—Mersey-Lyell Division split into North Western and Western Sub-divisions.

For a detailed account of the reasons underlying the adoption of a new statistical division format, see the 1973 *Year Book*.

Outline of the Present Structure

The divisions in the new structure are as follows:

Hobart Division

This Division comprises Hobart and Glenorchy Cities, the Municipality of Clarence, and parts of four other municipalities: Brighton; Kingborough; New Norfolk; and Sorell. The Division is Tasmania's principal industrial region and the administrative focal point. The Hobart Division has boundaries drawn wide enough to contain the expected outward growth of the inner urban area for the next 20 or 30 years.

One important component of the Hobart Division is Urban Hobart, defined as the densely settled contiguous parts of the cities of Hobart and Glenorchy, and of the municipalities of Clarence and Kingborough. The boundaries of Urban Hobart and of the Hobart Division do not conform with borders defining local government areas. (The details of these boundaries are given in Chapter 6 'Demography' under 'Population Centred on Hobart.')

A rough approximation of the area of the Hobart Division can be obtained by drawing the quadrilateral New Norfolk-Pontville-Carlton River Mouth-Snug.

Southern Division

Comprises the southern local government authority areas which have Hobart as their urban focus. Predominant activities include orcharding, sheep and cattle grazing, forestry and timber processing.

Northern Division

The Northern Division is the region with Launceston as its urban focus.

(i) *Tamar Sub-division*: This is the region dominated by the Tamar Valley. In the centre of this area is Launceston and its suburbs (known as Urban Launceston). This Sub-division includes several major manufacturing industries, port facilities of the northern region and agricultural, pastoral, dairying and forestry industries.

Urban Launceston is defined for statistical purposes as the City of Launceston plus the contiguous urban parts of the following municipalities: Lilydale, St Leonards, Evandale, Westbury and Beaconsfield.

(ii) *North Eastern Sub-division*: Comprises the outer seven municipalities of the Northern Division. Principal activities include agriculture, dairying, sheep and cattle grazing, forestry and some mining.

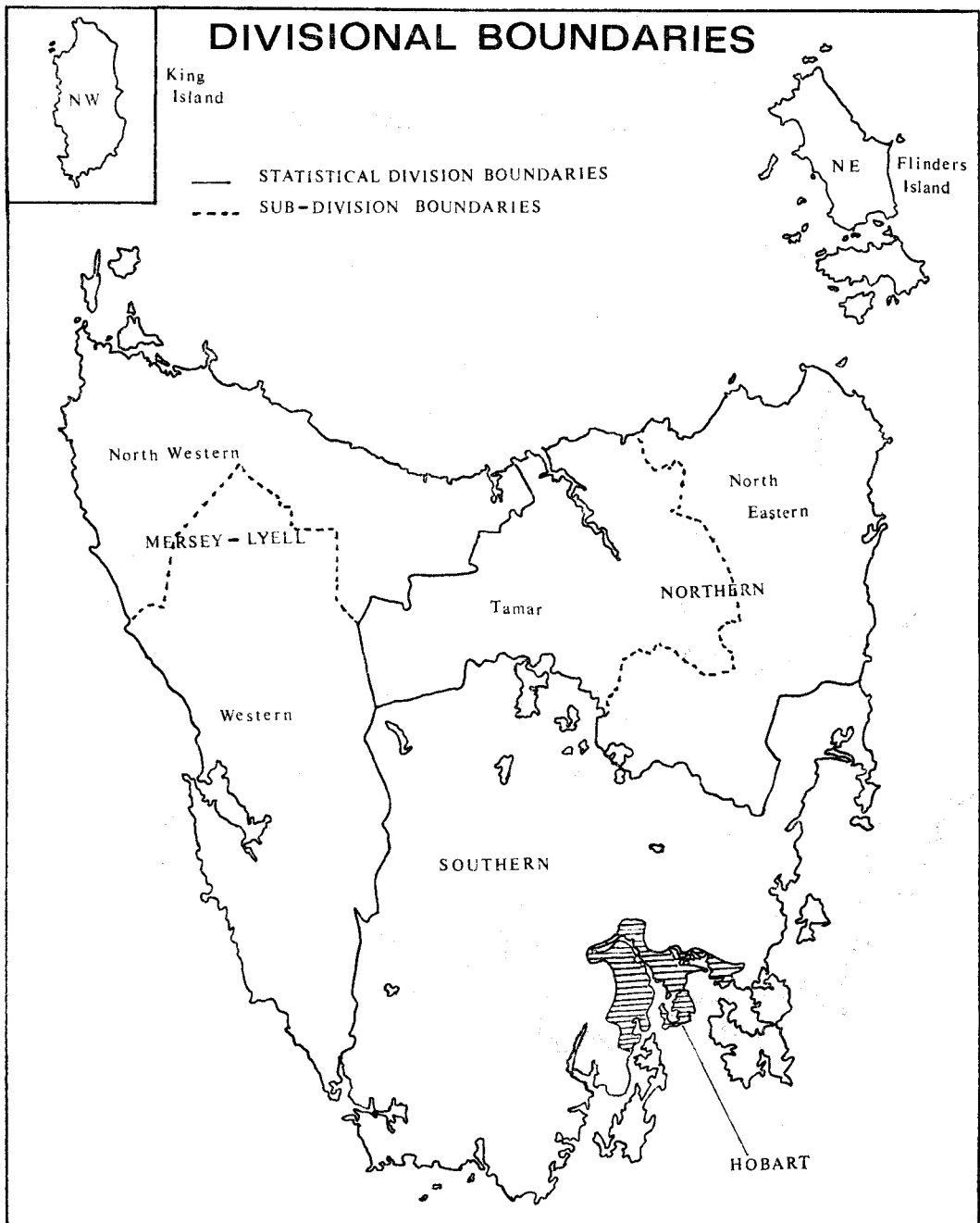
Mersey-Lyell Division

This Division encompasses the north-west and western portions of the State. The region has a twin urban focus of Burnie-Devonport.

(i) *North Western Sub-division*: Comprises the municipalities stretching along Bass Strait from Latrobe to Circular Head plus Kentish and King Island. The Sub-division includes several major manufacturing industries and is a principal agricultural, pastoral, dairying and forestry area for the State.

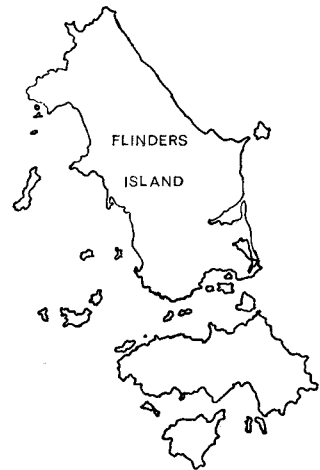
(ii) *Western Sub-division*: Contains Tasmania's western municipalities where mining activities predominate.

The following maps show: (i) statistical division and sub-division boundaries; (ii) local government authority components of statistical divisions.



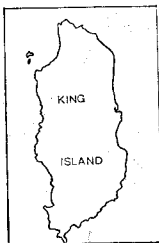
HOBART AND SOUTHERN STATISTICAL DIVISIONS



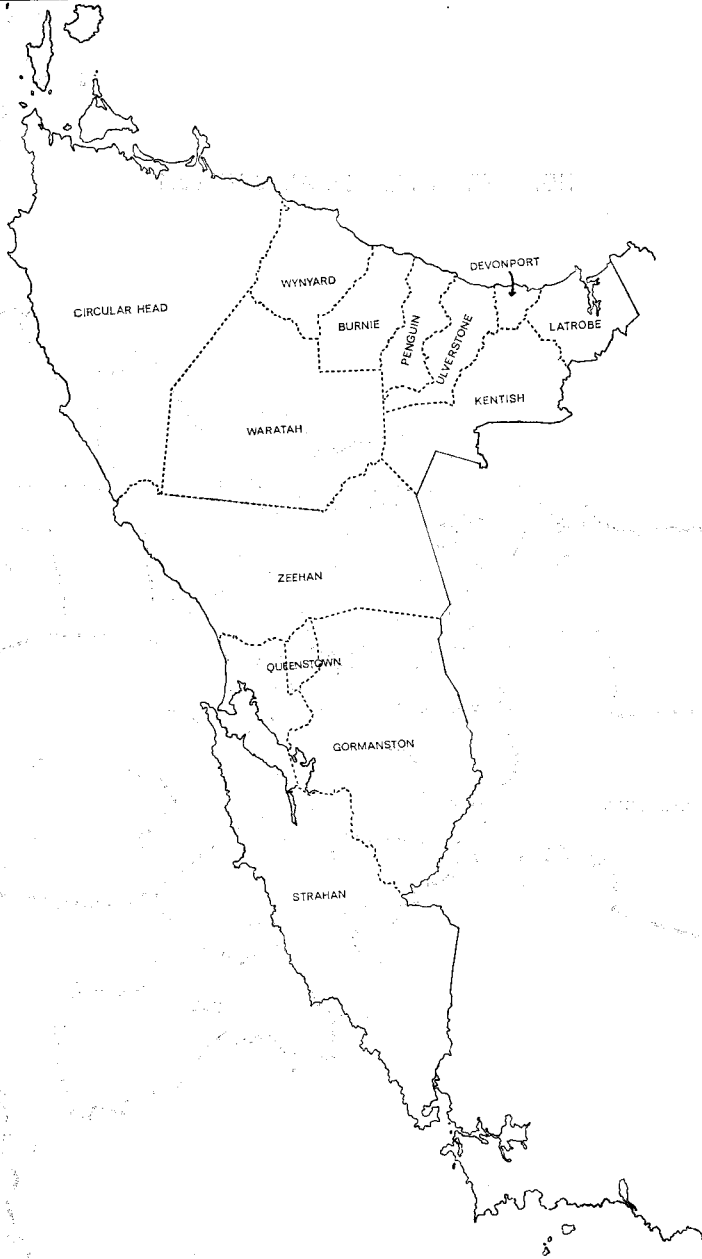


NORTHERN STATISTICAL DIVISION





MERSEY-LYELL STATISTICAL DIVISION



The next table lists the local government authority components of each statistical division and sub-division:

Local Government Authority Areas by Statistical Division and Sub-division

Statistical Division Components	Statistical Division Components	Statistical Division Components
Hobart— Hobart Glenorchy Clarence Brighton (Part) Kingborough (Part) New Norfolk (Part) Sorell (Part) Southern— Brighton (Part) Kingborough (Part) New Norfolk (Part) Sorell (Part) Bothwell Bruny Esperance Glamorgan Green Ponds Hamilton Huon Oatlands Port Cygnet Richmond Spring Bay Tasman	Northern— Tamar Launceston Beaconsfield Deloraine Evandale George Town Lilydale Longford St Leonards Westbury North Eastern— Campbell Town Fingal Flinders Portland Ringarooma Ross Scottsdale	Merscy-Lyell— North Western— Burnie Circular Head Devonport Kentish King Island Latrobe Penguin Ulverstone Wynyard Western— Gormanston Queenstown Strahan Waratah Zeehan

ADMINISTRATION AND AREA OF STATE

Sovereignty

Tasmanian sovereignty covers an area bound by the approximate rectangle $39^{\circ} 12'$ to 45° South latitude and 143° to 150° East longitude.

Since the boundary line between Tasmanian and Victorian sovereignty is defined as $39^{\circ} 12'$ South latitude, numerous Bass Strait islands, the chief being the Furneaux group, King Island and the Hogan, Curtis and Kent groups, are part of Tasmania. In effect some Tasmanian territory (Rodondo and West Moncoeur Islands) is located only 13 to 16 kilometres from the Victorian coast.

The proclamation of $39^{\circ} 12'$ South latitude as the northern boundary of Tasmanian sovereignty dates from 1825 when Van Diemen's Land became a colony distinct from New South Wales. Subsequent State mining legislation has followed the limits of the 1825 proclamation and Tasmania claims mining jurisdiction over Bass Strait as far north as $39^{\circ} 12'$ South latitude.

Macquarie Island, site of an Antarctic Research Station and also part of the State of Tasmania, is situated in 54° South latitude and its area is included in Esperance, a State coastal municipality.

Area of Major and Minor Islands

The official area of the State of Tasmania (based on the 1963 survey) is 68,331 square kilometres (6,833,000 hectares). Before this date an estimate made in 1907 indicating an area of 67,897 square kilometres (6,790,000 hectares) was accepted.

The State consists of 49 local government areas (cities and municipalities). A number of islands is included in the area of the State; some of these islands, either singly or as a group, form complete municipalities (e.g. Bruny, Flinders) while the others comprise parts of municipalities centred on the main island of the State. The following table shows the area of these islands and the municipalities to which they belong:

Area of Islands

Island	Area		Municipality
	Square Kilometres	Hectares	
Bruny	362.10	36,210	Bruny (a)
King	1,099.19	109,919	King Island (a)
Flinders	1,374.30	137,431	Flinders (a)
Prime Seal	9.71	971	
Badger	10.13	1,012	
Vansittart	6.06	607	
Cape Barren	445.14	44,515	
Clarke	113.31	11,331	Circular Head
Three Hummock	69.59	6,960	
Hunter	73.66	7,365	
Robbins	101.17	10,117	
Maria	100.78	10,077	
Schouten	34.40	3,440	Spring Bay
Macquarie	123.44	12,343	Glamorgan Esperance
Total Islands	3,922.95	392,298	
Mainland Tasmania	64,408.13	6,440,810	
Total Tasmania	68,331.08	6,833,108	

(a) Island municipality.

Area of Tasmania and Other Australian States

The following table compares the area and length of coastline of Tasmania with those of other Australian States and Territories:

Australia: Areas and Coastline of States and Territories

State or Territory	Area	Proportion of Total Area	Coastline	Area per Kilometre of Coastline
	km ²	per cent	kilometres	km ²
Tasmania	68,331	0.89	(a)1,448	47
New South Wales	801,428	10.43	(b)1,127	711
Victoria	227,619	2.96	1,094	208
Queensland	1,727,523	22.47	4,828	358
South Australia	984,377	12.81	2,478	397
Western Australia	2,527,623	32.88	7,001	361
Northern Territory	1,347,520	17.53	1,674	805
A.C.T... .. .	2,432	0.03	..	..
Mainland	7,618,523	99.11	18,202	419
Australia	7,686,854	100.00	19,650	391

(a) Excludes coastline of islands totalling at least a further 1,295 kilometres.

(b) Includes coastline of Jervis Bay which is part of Australian Capital Territory.

Area of Municipalities and Cities

In the table that follows, the measured area of the State (6,833,108 hectares or 68,331.08 square kilometres) has been rounded, in total, to the nearest 1,000 hectares and to the nearest square kilometre. The corrections necessary to reconcile to the rounded totals have been made by adjusting the area of Esperance, the largest municipality. Where municipal boundaries lie in the sea or an estuary these legal limits have been disregarded so that the stated area relates to a physical boundary (i.e. the coastline). However, the areas shown include all smaller islands which form part of the State.

Area of Statistical Divisions, Sub-divisions and Local Government Areas

Local Government Area (Statistical Division and Sub-division in Bold Type)	Area		Local Government Area (Statistical Division and Sub-division in Bold Type)	Area	
	Hectares	Square Kilometres		Hectares	Square Kilometres
Hobart (a) (H) ..	7,984	79.84	Campbell Town.. ..	143,548	1,435.48
Glenorchy (a) (H) ..	11,976	119.76	Fingal	273,144	2,731.43
Clarence (H) ..	25,121	251.20	Flinders	199,152	1,991.52
Brighton (H) (S) ..	44,072	440.71	Portland	158,144	1,581.45
Kingborough (H) (S) ..	35,484	354.83	Ringarooma	163,185	1,631.85
New Norfolk (H) (S) ..	131,572	1,315.71	Ross	124,031	1,240.32
Sorell (H) (S) ..	78,185	781.84	Scottsdale	129,153	1,291.53
Bothwell (S) ..	260,805	2,608.04	North Eastern ..	1,190,357	11,903.58
Bruny (S) ..	36,210	362.08	NORTHERN ..	2,060,635	20,606.34
Esperance (b) (S) ..	618,472	6,184.76	Burnie	61,774	617.74
Glamorgan (S) ..	153,508	1,535.09	Circular Head	491,731	4,917.30
Green Ponds (S) ..	41,613	416.13	Devonport	11,613	116.14
Hamilton (S) ..	584,957	5,849.57	Kentish	118,749	1,187.48
Huon (S) ..	77,419	774.20	King Island	109,919	1,099.19
Oatlands (S) ..	153,991	1,539.90	Latrobe	54,879	548.79
Port Cygnet (S) ..	24,032	240.33	Penguin	43,185	431.85
Richmond (S) ..	56,814	568.14	Ulverstone	51,129	511.29
Spring Bay (S) ..	112,177	1,121.78	Wynyard	81,250	812.51
Tasman (S) ..	47,984	479.85	North Western ..	1,024,229	10,242.29
HOBART ..	93,843	938.43	Gormanston	287,176	2,871.76
SOUTHERN ..	2,408,633	24,086.33	Queenstown	14,153	141.54
Launceston (a) ..	2,822	28.23	Strahan	373,264	3,732.64
Beaconsfield ..	63,790	637.89	Waratah	270,886	2,708.87
Deloraine ..	291,652	2,916.51	Zeehan	300,281	3,002.81
Evandale ..	98,951	989.51	Western	1,245,760	12,457.61
George Town ..	65,403	654.02	MERSEY-LYELL ..	2,269,989	22,699.90
Lilydale ..	68,387	683.86	TASMANIA (c) ..	6,833,000	68,331.00
Longford ..	99,757	997.59			
St Leonards ..	89,113	891.11			
Westbury ..	90,403	904.04			
Tamar ..	870,278	8,702.76			

(a) City.

(b) Measured area is 6,185.86 square kilometres (618,586 hectares).

(c) Measured area is 68,331.08 square kilometres (6,833,108 hectares).

At the 1966 Census, new definitions based on high population density were employed to fix the boundaries of urban areas. The two major centres in the State, with boundaries conforming to the definitions, were: (i) Urban Hobart (approximately 105 square kilometres); and (ii) Urban Launceston (approximately 70 square kilometres). (See Chapter 6 for definition of these areas.)

CLIMATE OF TASMANIA**Introduction**

Since Tasmania lies between 40° and $43\frac{1}{2}^{\circ}$ south of the Equator and is an island with no point more than 115 kilometres from the sea, its climate is classified as temperate maritime. On the coast the daily temperature range averages about 5° Celsius, but inland the range is almost doubled, indicating a slight continental effect.

The combination of mountainous terrain in the western half of the State and prevailing westerly winds produces a marked west-east variation of climate, and especially of rainfall.

Summers are mild and characterised by greatly lengthened days. The sun reaches a maximum elevation of $70-73^{\circ}$ in mid-summer, giving 15 hours of daylight in the north and $15\frac{1}{2}$ hours in the south. In mid-winter, the sun's elevation does not exceed $20-23^{\circ}$, and the shortest day consists of $9\frac{1}{4}$ hours of daylight in the north, falling to slightly under nine hours in the south.

In winter, westerly winds reach their greatest strength and persistence, causing a distinct maximum in rainfall distribution in the west and north-west. In the east and south-east, rainfall is more evenly distributed over the year. Coastal areas of Tasmania enjoy relatively mild winters as compared with, say Boston (U.S.A.) which is about the same latitude north.

Winds

The prevailing winds over most of the island are north-west to south-west, with greatest strength and persistence during late winter. Speed and direction vary with the eastward passage of high and low pressure systems. In the summer months, when westerlies are weak, afternoon sea-breezes become the predominant wind in coastal areas. Occasional periods of north-east to south-east winds occur.

The highest average wind speeds are associated with extensive deep depressions over ocean areas south of Tasmania.

Temperature

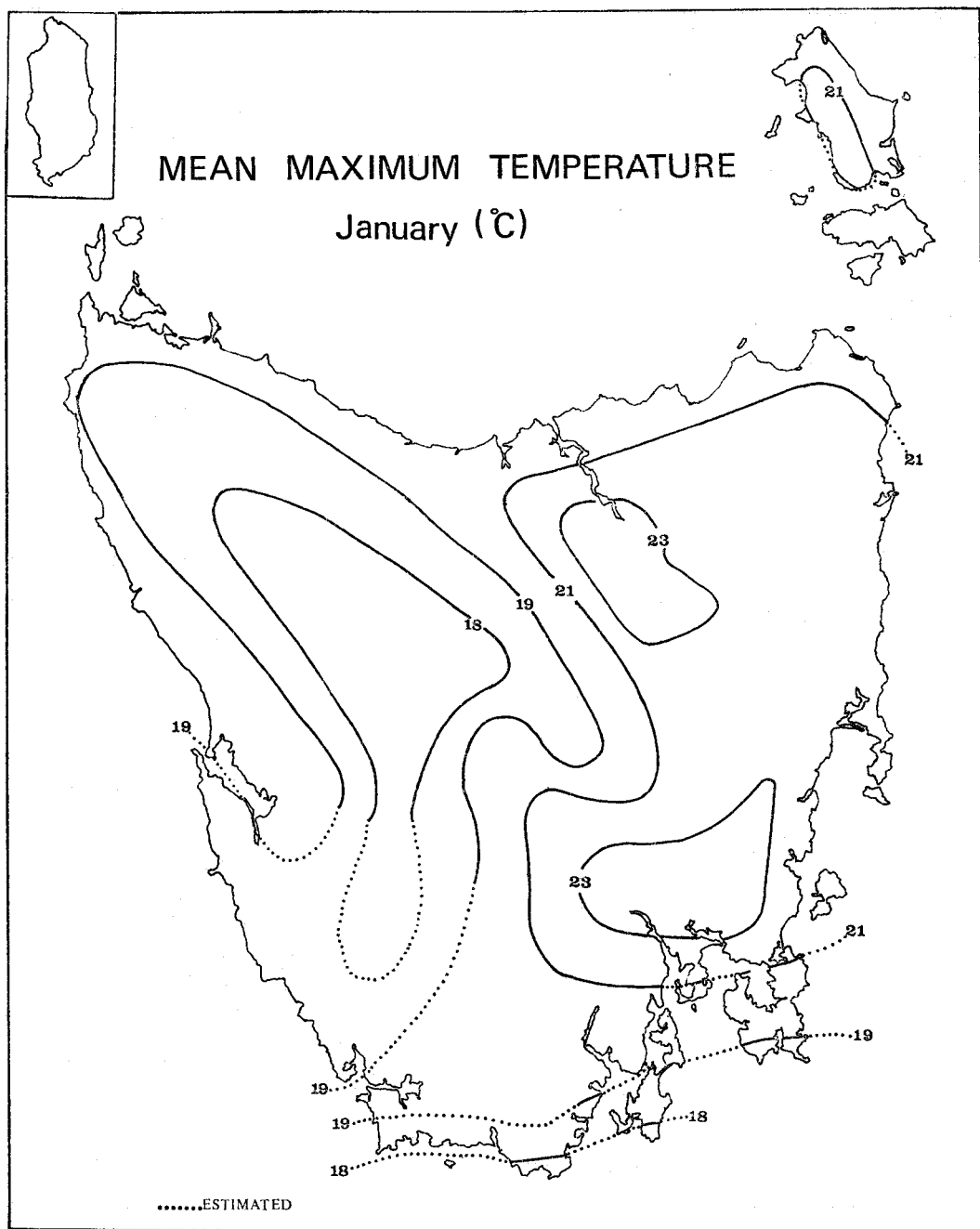
Sea level temperatures are reduced by approximately 1°C for each 100 metres of altitude. Hence in a mountainous island like Tasmania the isotherms (lines of equal temperature drawn on a map) will be much influenced by topography. Greater cloud cover over the western half, a result of the persistent westerlies, further decreases day-time temperatures in the west, while the Föhn effect warms and dries the westerly airstreams as they descend to the Midlands, the East Coast and South-East districts.

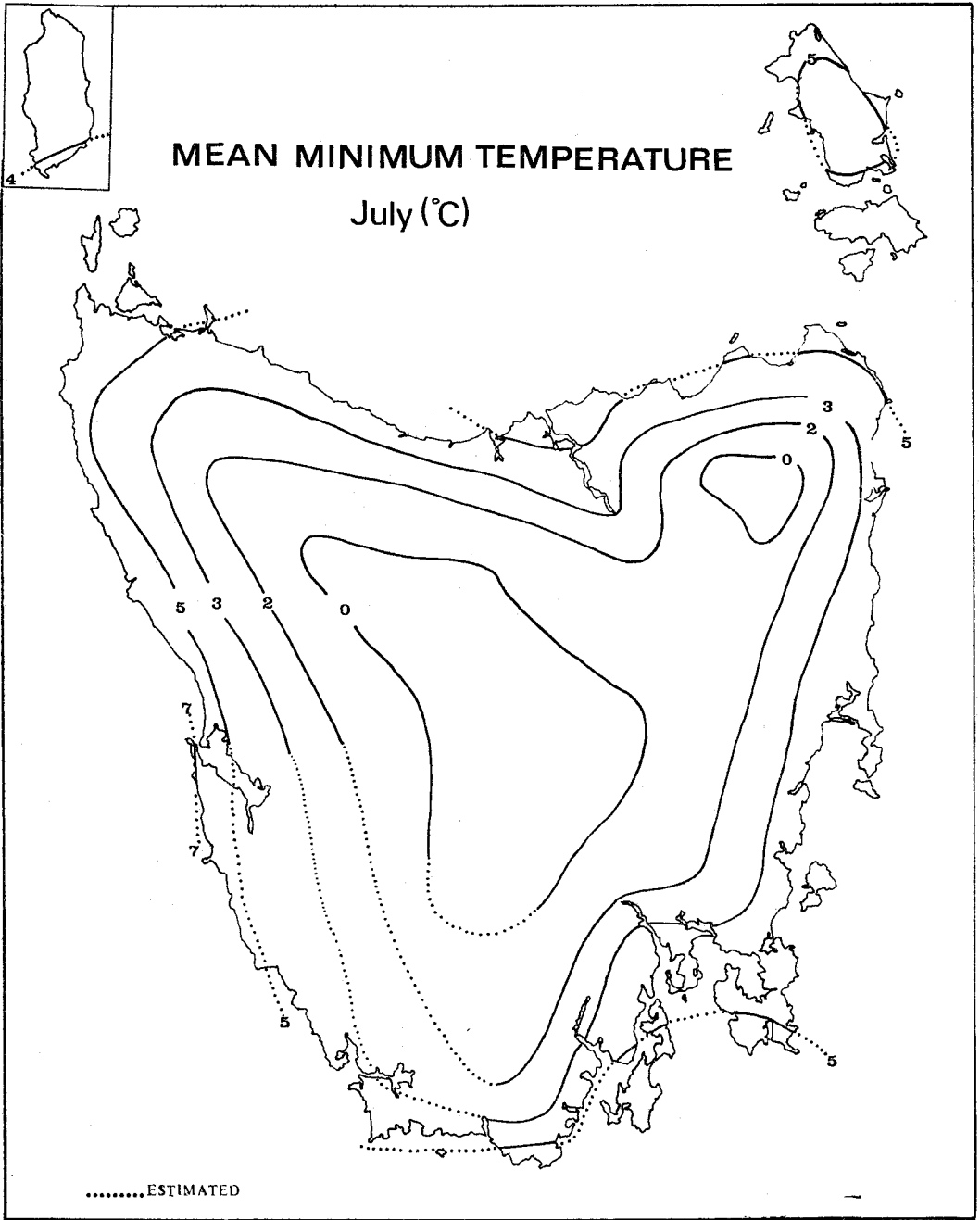
Frosts are affected markedly by topography, the valleys acting as natural channels for the drainage of cold air at night. Widespread severe frosts are experienced in winter on the Central Plateau and in upland valleys. Inland centres below 300 metres are virtually frost-free only in summer, while the north coast, the east and south-east have few frosts after early October. Above 300 metres there is no frost-free month.

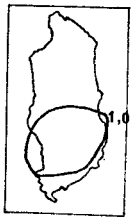
Tasmania only occasionally experiences the extremes of temperature common to the other States. High temperatures recorded in the east and south-east of Tasmania generally occur on the last day of a warm spell during which a dry air mass of mainland origin is advected over this State, from a direction between north and north-west. Some cooling in the lower air layers over the waters of Bass Strait prevents the northern coast from reaching the higher temperatures that are experienced in the south under these conditions. The highest temperature recorded in Tasmania was 40.8°C at Bushy Park in December 1945. The lowest temperature recorded was -12.8°C at Oatlands in May 1902.

The recorded extremes of temperature for Hobart are 40.7°C in December 1897 and -2.8°C in June 1972. Readings above 37.8°C or below -1.1°C are rare, the mean maximum temperature in summer being 21.1°C and the mean minimum in winter, 4.9°C .

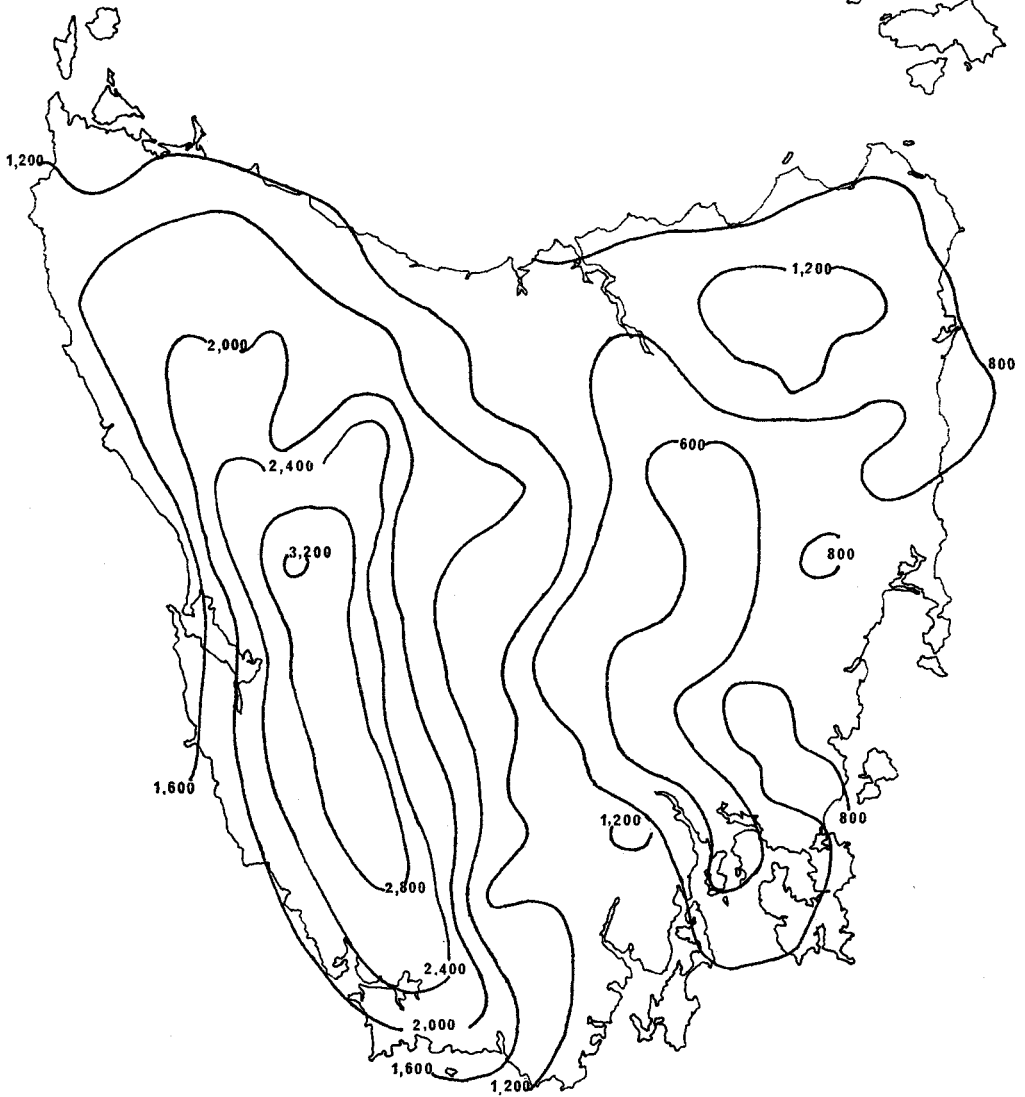
The mean maximum temperature for January and the mean minimum temperature for July over Tasmania are shown in the following maps. The mean maximum is the average of daily maxima for January; the mean minimum the average of daily minima for July.







ANNUAL TASMANIAN RAINFALL (Millimetres)



Rainfall

Tasmania's position on the northern edge of the 'Roaring Forties' (a westerly air-stream), its exposure to this stream and the mountainous nature of the terrain are the controlling influences on the amount, distribution and reliability of the State's rainfall.

In the west, average annual rainfall ranges from 1,300 to 1,500 mm on the coast to 3,600 mm at Lake Margaret; in the north-east, from 550 mm on the coast to 1,300 mm on the highlands while rainfall in the north-west ranges from 900 mm near the coast to 1,750 mm in the higher inland areas.

Extreme three to five-day rainfalls occur most often on the west coast in late June, when the westerlies are increasing in strength and persistence and the sea temperature is well above the land temperature. In the north, short periods of extreme precipitation occur when wind flow is sustained for up to two days from the north-east, usually in mid to late autumn. The high moisture content of such streams from over the relatively warm waters of the Tasman Sea results in heavier, if less prolonged, rainfall than is produced in the westerly streams.

There is a strong gradation in rainfall from west to east, because of topography, with a distinct rain shadow east of the Central Plateau. Parts of the Midlands average less than 500 mm per year. Totals in the east and south-east are higher (up to 1,000 mm on exposed slopes).

Rainfall is least reliable in the east, south-east, Midlands and Derwent Valley. These areas are driest when, respectively, westerlies are relatively absent or at their strongest i.e. late summer and late winter. Highest rainfall in these areas tends to occur in autumn and spring, under the influence of small cyclonic depressions off the east coast.

Effective rainfall is the amount necessary to compensate for evaporation, begin germination and maintain plant growth above wilting point. Average rainfall is sufficient for this purpose from May to September. From October to January the chance of receiving effective rainfall decreases, except in the west and north-west, where the probability is usually better than 50 per cent. In the Midlands, the Derwent Valley, the south-east and east, and in the northern inland, the chance of receiving at least effective rainfall during the summer months is very small.

The average annual rainfall distribution over Tasmania is shown on the preceding map.

Snow and Hail

Snow and hail can be experienced over the highlands at any time of the year. Heaviest snowfalls occur, as a rule, in late winter and spring, and less frequently in June and July. Extensive snow below 150 metres occurs, on the average, less than once every two years, associated with an unusually vigorous outbreak of cold air from Antarctic regions. There is no permanent snowline, but patches of snow often remain on the highest peaks till December.

Hail is most likely in spring, though possible in any month. Hail storms are a big risk to fruit crops in the Huon Valley and on the Tasman Peninsula and sometimes cause extensive damage.

Thunderstorms

These are most common in the north and north-west of the State and are associated with the lifting of warm moist air by a cold front. Thunderstorms occur mainly in the summer months. Hobart and Launceston average five to seven storms per year, and the north and north-west 10 to 15. The Central Plateau and north-eastern highlands report, on average, about five storms per year, while the Midlands, as gauged by Oatlands, has less than three.

Floods

In Tasmania the river system most affected by flooding is the South Esk. The Esk catchment includes most of the north-eastern highlands, where annual rainfall averages about 1,300 mm, and part of the Western Tiers where run-off can be rapid. As much of the South Esk and its tributaries flow through flat country, flooding can be widespread and disruptive.

Flooding of the Derwent River system can be extensive but is less frequent than in the case of the South Esk. The most severe flood on record in the Derwent occurred in April 1960 with the peak discharge flow recorded as 3,400 cumecs (cubic metres per second) at Macquarie Plains.

Flooding of rivers in the west and south of the State can be of greater frequency than in the Derwent and Esk systems but because of mountainous terrain and lack of population these pass mostly unnoticed. Similarly the short fast-flowing rivers of the east coast flood and fall rapidly, but can cause damage and disruption of road systems.

In the north and north-west of Tasmania many rivers have their catchments along the northern edge of the Central Plateau and can flood quickly. In August 1970 severe flooding occurred along the Mersey and Forth River systems causing loss of life, widespread property damage and stock losses, and severe damage to road and railway systems.

Humidity

The mean relative humidity at both 9.00 a.m. and 3.00 p.m. exceeds 50 per cent at all stations in all months of the year. Relative humidity is generally higher in the morning than in the afternoon, and higher in coastal regions than inland. Days of high temperature combined with uncomfortably high humidity are rare. In the east and south-east, warm dry winds from a west or north-west direction may occasionally have a relative humidity as low as 10 per cent.

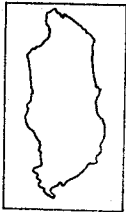
Droughts and Bushfires

Although Tasmania has the highest average rainfall of any State in the Commonwealth, drought conditions are not unknown. Unlike the remainder of Australia droughts in this State tend to be highly localised and of reasonably short duration. The most severe effects are usually felt over a period of only a few months, but serious rainfall deficiencies can extend over a period of two or three years. Prior to 1972 the most severe long term droughts occurred during the periods 1888-1889, 1897-1898, 1918-1920, 1933-1934, 1945-1946, 1949-1952 and 1967-1969. During the 12 month period ended January 1973 record low rainfall was recorded in the Midlands, East Coast and Northern rainfall districts. All other rainfall districts experienced below normal rainfall during 1972. (Not one of the nine districts' rainfall exceeded 85 per cent of normal during 1972.) Some relief from the drought conditions was given by reasonable rainfalls during February 1973.

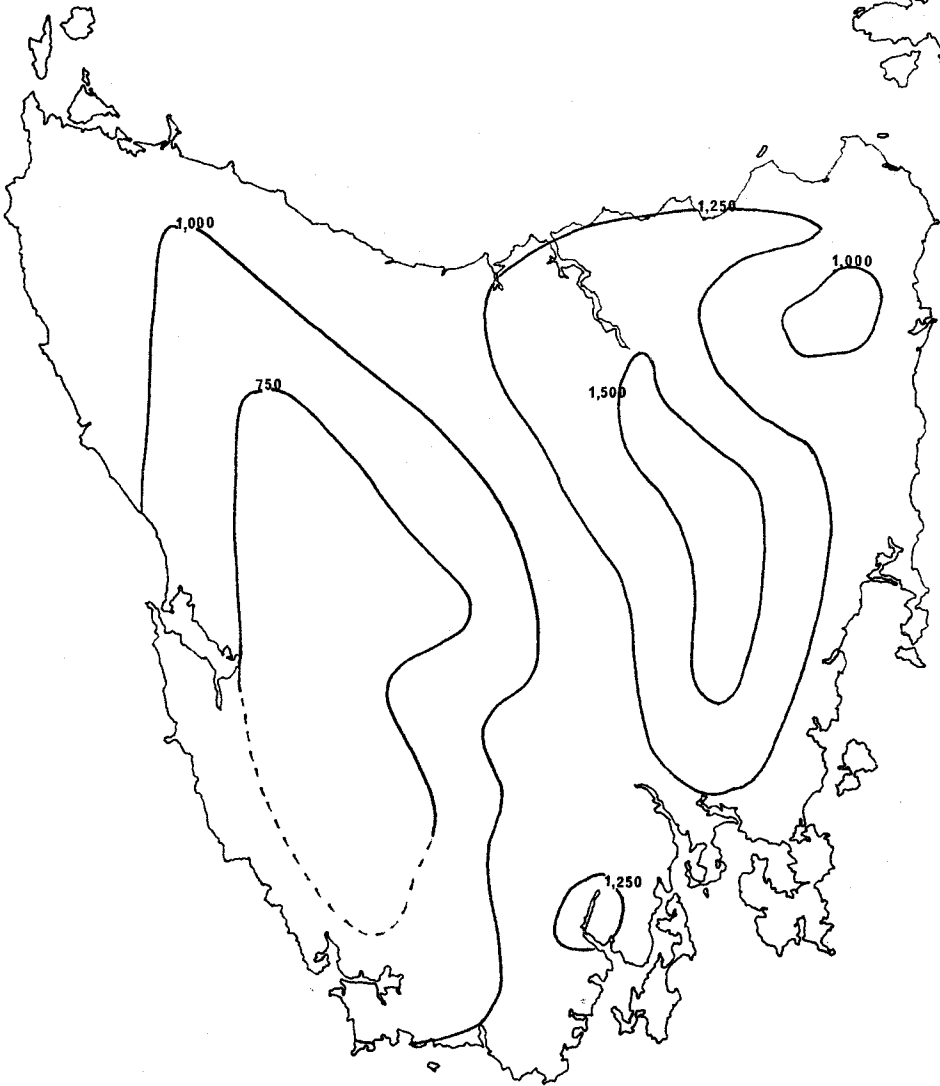
Serious bushfires occurred in 1898, 1915, 1946, 1951 and 1967. The bushfire of 7 February 1967 was the most severe in the State's history causing 62 deaths and damage to property estimated to be in excess of \$25m.

Evaporation

Evaporation depends mainly on wind strength, the moisture deficit of the airstream and on sunshine. The World Meteorological Organisation has asked for standardisation of measurement of evaporation by use of the Class 'A' pan (a galvanised pan, four feet in diameter and ten inches deep) which gives higher figures for evaporation than those obtained from the containers previously used in Australia (class 'A' pan figures should be multiplied by a factor of about 0.80 to obtain the average potential evapo-transpiration likely for Tasmanian crops). There is now an increased network of the new type pans and therefore the accompanying map, showing mean annual evaporation, has been redrawn using the new standards.



MEAN ANNUAL EVAPORATION
(Millimetres)



At Launceston Airport the annual evaporation is just over 1,500 mm due largely to the prevalence of winds coming from the Western Tiers, which become warmer and drier in their descent to the lower Midlands and Tamar areas, thus increasing evaporation. Monthly evaporation at Launceston Airport has ranged as high as 270 mm in summer but drops to between 25 and 40 mm in winter. This area of high evaporation extends southward to the lower Derwent and Huon areas.

The lowest evaporation rate occurs in the Central Plateau, West Coast Ranges and south-west areas where evaporation may fall to less than 750 mm. This is due to the high moisture content of the prevailing westerlies and the high average cloud cover. In these areas the monthly evaporation rate may range from about 125 mm in January to only 12 mm in June and July.

Another area of low evaporation (below 1,000 mm a year) is located in the North-East Highlands.

Sunshine

The average number of hours of sunshine a year ranges from about 2,500 hours in the northern Midlands to less than 1,750 hours on the west coast and western highlands, this area having the least amount of sunshine in Australia. Hobart averages 2,100 hours per year and Launceston around 2,400.

In January daily averages of sunshine range from nine hours per day between the Midlands and Launceston to six hours per day on the west and south coasts. In mid-winter, average daily sunshine is down to a maximum of three hours on the east coast and to considerably less on the west coast and highlands.

The Climate of Hobart

Temperature: Mean maximum temperature exceeds 21°C in January and February. On average there are two or three days per year with maximum temperatures greater than 32°C. Only once, in February 1968, have three successive days over 32°C been recorded in Hobart. Minimum temperatures below -1.1°C are rare.

Rainfall: There is a strong gradient of rainfall, immediately west of Hobart suburbs, caused by the bulk of Mt Wellington. On the south-eastern slopes of the mountain the annual rainfall reaches 1,400 mm (at The Springs and The Gap) while at Ferntree the annual average is 1,140 mm. The rainfall decreases to about 600 mm in the city area, the annual average being 620 mm at the Regional Office of the Bureau of Meteorology. Some eastern shore suburbs receive as little as 500 mm of rain per annum.

Monthly totals are fairly uniform. The wettest twelve months on record at the Bureau yielded 1,100 mm (to December 1916) and the driest, 320 mm (to November 1943).

Relative Humidity: Highest humidity is at the time of lowest temperature, in the early mornings during winter. As temperatures rise to 3 p.m., humidity decreases by 15-20 per cent. The seasonal variation is not great, although the average humidity during the winter months is 70 to 75 per cent and during the summer months 58 per cent. Periods of high humidity combined with high temperatures are rare.

Fog: Fogs occur in the city about four times per year, in the cooler months, but are more frequent over and near the Derwent River, down which they are often carried on a light north-west wind. Fog frequency is far less than either that of Launceston or Melbourne.

Wind: The main wind direction is north-west, induced by the orientation of the Derwent Valley. Next in importance is the sea-breeze (from south or south-east) during summer months.

The strongest wind gust experienced in Hobart was 149 km/h recorded during a storm in September 1965.

Snow and Hail: Snow below 300 metres occurs, on the average, less than once per year. Falls lying in the centre of the city, almost at sea level, have occasionally been recorded, the last being in September 1970. Snow generally lies on Mt Wellington during winter and early spring months, but it is rare between November and March. Hail occurs, on the average, four times per year, mainly between September and November.

Frost: The average annual frequency of days of frost is 31, mostly between June and August. None has been recorded in January. Cold air drainage is found in the hilly suburbs and frosts are common on the valley floors.

Sunshine and Cloud: No marked seasonal variation of cloud amount occurs but a strong dependence on time of day is evident. During April to September cloud cover is greater in the afternoon and from October to March greater in the morning.

A clear-cut seasonal variation in monthly average hours of sunshine also occurs with amounts varying from 231 hours in January to 111 hours in June.

Climatic Data: The next table gives the main climatic data for Hobart during the year 1972 on a monthly basis:

Hobart Weather in 1972

Month	Shade Temperature				Mean Daily Hours of Sunshine	Rainfall	
	Mean Maxima	Mean Minima	Extremes			Total in 1972	Long-term Average
			Maximum	Minimum			
	°C	°C	°C	°C	hours	mm	mm
January	20.5	11.7	28.2	7.3	7.7	57	49
February	24.3	14.9	31.5	11.7	8.0	45	42
March	20.4	11.2	27.8	8.3	6.3	11	48
April	18.5	10.0	25.0	5.9	6.0	61	55
May	15.9	7.9	24.6	1.8	5.5	8	49
June	12.5	4.7	19.6	2.8	4.4	16	59
July	11.4	4.7	16.9	0.2	4.5	87	53
August	13.6	5.9	17.8	1.2	5.5	38	49
September	17.4	7.9	27.6	1.8	6.7	29	52
October	18.1	7.7	28.4	2.8	7.9	22	63
November	18.2	9.8	24.2	5.0	8.2	26	55
December	20.9	11.3	35.4	4.1	8.7	51	57
Total for Year .. ..	..	..	..	..	..	451	631

The Climate of Launceston

Being over 50 km from the coast, Launceston exhibits a slight continental effect—greater seasonal and daily variations of temperature and lower rainfall as compared with stations on the coast.

Temperature: Average maximum temperature exceeds 24°C in January and February, 21°C in December and March, and 13°C in June and July. Average minimum is about 11°C in summer, falling below 4°C in winter. Freezing temperatures are common during winter mornings, the lowest recorded being -6°C. Up to 50 frost days are to be expected in a year, mostly from May to August. Light frosts may occur in summer.

Rainfall: The annual average is 736 mm. The wettest month is July (86 mm) while January and February, the driest months, each receive less than half this amount. The wettest month on record is August 1936 (254 mm). Annual totals range from 467 mm (1908) to 1,057 mm, (1946). Some severe thunderstorms are experienced. Snow does not settle in Launceston, but falls occur on surrounding hills.

Relative Humidity: Seasonal and daily variations are similar to those for Hobart, but the daily readings are five to 10 per cent higher.

Fog: Occasions of high humidity, associated with moist north-east airstreams, are relatively frequent. Fog occurrence averages more than 30 days a year, mostly between May and August.

Wind: The NW-SE orientation of the Tamar Valley has a marked effect on surface winds, which conform mainly to these directions. The north-west wind is often reinforced in the afternoon by a sea-breeze from much the same direction. Strong winds are most common during the colder half of the year and severe squalls can occur in association with thunderstorms.

Rainfall at Selected Stations

The following table shows annual rainfall figures for selected stations:

Annual Rainfall at Representative Stations
(Millimetres)

Station	1968	1969	1970	1971	1972	Long-term Averages (a)
Avoca	573	644	842	859	410	555
Beaconsfield	1,228	1,001	1,087	1,298	679	943
Burnie (Holymans)	1,183	961	991	1,188	669	994
Campbell Town	502	575	694	608	344	552
Cygnat	757	1,034	1,118	1,081	631	842
Cradle Valley	4,086	2,712	4,054	3,097	2,436	2,766
Deloraine (Ashley)	1,163	937	n.a.	1,225	962	962
Franklin	1,086	1,003	1,113	1,033	776	901
Hobart (Weather Bureau)	473	720	781	752	451	631
Hobart (Airport)	406	663	700	662	381	568
Kettering	741	973	1,057	1,058	606	883
Launceston (Airport)	914	803	832	938	409	717
Lilydale	1,163	977	1,181	1,357	641	966
Longford	823	734	789	930	432	631
Maydena	1,736	1,314	1,419	1,205	1,034	1,220
New Norfolk	529	602	597	685	409	551
Oatlands	478	632	750	675	396	565
Queenstown	3,259	2,529	2,733	2,678	2,281	2,525
Ringarooma	1,536	1,193	1,460	1,562	899	1,234
Smithton	1,328	1,166	1,318	1,452	626	1,100
Springfield South	1,667	1,342	1,556	1,766	n.a.	1,303
St Helens	458	931	1,099	985	504	781
St Marys	509	1,257	1,570	1,385	536	1,023
Swansea	366	952	954	809	498	611
Triabunna	374	972	1,049	1,002	422	662
Ulverstone	1,115	1,036	1,093	1,228	649	960
Waratah	2,977	2,154	2,314	2,167	1,406	2,198

(a) Number of years of record used to calculate the long-term average varies from station to station.

Seasonal Temperatures

The mean temperature for any locality can give a false impression, e.g. a mean temperature of 25°C based on a maximum of 50°C and a minimum of 0°C, all in the one day. A better way of examining a locality's climate is to take the maximum temperature each day and average these readings for each season; similarly to take the minimum temperature each day and average these readings for each season. These mean maxima and mean minima then give an indication of the daily variation that may be expected. The following table shows the mean maximum and mean minimum temperatures for nine selected stations in summer, autumn, winter and spring.

Temperatures at Selected Stations, 1972
(°C)

Station	Maximum Temperatures		Minimum Temperatures		Mean Temperatures	
	Mean for Season (a)	Departure from Normal	Mean for Season (b)	Departure from Normal	Mean for Season	Departure from Normal
SUMMER (December to February)						
Hobart	22.5	+1.5	12.6	+1.4	17.5	+1.4
Launceston	24.2	+0.2	11.9	+1.0	18.0	+0.6
Cape Bruny	18.9	+1.4	11.4	+0.7	15.1	+1.0
Devonport	21.4	+0.8	12.1	+0.7	16.7	+0.8
Maydena	20.8	0.0	8.3	+1.3	14.5	+0.6
Oatlands	21.5	+0.6	9.0	+1.1	15.3	+0.8
St Helens	22.2	+0.3	10.4	-0.4	16.3	-0.1
Savage River	18.7	0.0	9.1	0.0	13.9	0.0
Zeehan	19.5	+0.1	9.2	+0.3	14.3	+0.2
AUTUMN (March to May)						
Hobart	18.3	+1.2	9.7	+1.1	14.0	+1.2
Launceston	20.7	+2.0	5.7	-3.5	13.2	-0.8
Cape Bruny	16.3	+1.2	9.6	+0.3	12.9	+0.7
Devonport	18.5	+1.1	7.5	+0.8	13.0	+1.0
Maydena	16.2	+0.7	5.1	-0.3	10.6	+0.2
Oatlands	16.9	+1.2	5.1	+0.1	11.0	+0.6
St Helens	20.4	+2.1	6.9	-0.6	13.7	+0.8
Savage River	14.6	+0.2	7.1	+0.2	10.9	+0.2
Zeehan	16.4	+0.6	7.1	+0.1	11.7	+0.3
WINTER (June to August)						
Hobart	12.1	+0.1	5.0	+0.1	8.5	0.0
Launceston	12.9	+0.2	0.8	-2.4	6.9	-1.1
Cape Bruny	11.6	+0.3	6.4	+0.3	9.0	+0.4
Devonport	13.1	+0.4	4.3	-0.3	8.7	0.0
Maydena	9.7	-0.4	1.9	+0.4	5.8	0.0
Oatlands	9.7	-0.3	0.1	-1.9	4.9	-1.0
St Helens	14.1	+0.5	2.8	-0.4	8.5	0.0
Savage River	9.7	-0.1	3.7	+0.1	6.7	0.0
Zeehan	11.1	-0.1	3.2	-0.6	7.1	-0.4
SPRING (September to November)						
Hobart	18.0	+1.2	8.5	+1.0	13.3	+1.2
Launceston	18.4	+0.4	6.5	-0.3	12.5	0.0
Cape Bruny	14.9	+0.8	8.2	+0.3	11.5	+0.6
Devonport	16.7	+1.6	7.2	+0.2	11.9	+0.9
Maydena	16.1	+1.1	5.0	+1.0	10.5	+1.1
Oatlands	16.7	+1.2	4.4	+0.1	10.5	+0.6
St Helens	20.1	+2.6	7.6	+0.9	13.9	+1.8
Savage River	12.6	+0.1	4.7	+0.1	8.7	+0.1
Zeehan	15.3	+0.5	6.2	+0.3	10.7	+0.4

(a) Average of maximum daily temperatures for season.

(b) Average of minimum daily temperatures for season.

Rainfall in Districts

Tasmania is divided into nine meteorological districts (not to be confused with statistical divisions) with fairly well-defined land use patterns appropriate to each. The following table shows rainfall totals of each district for the past 10 years:

Rainfall of Tasmania in Districts
(Millimetres)

Period						Northern	King Island	Central Plateau	Midlands		
						Agriculture, Dairying and Mixed Farming		Grazing (Mainly Sheep)			
1963	..	..	..	..	..	855	782	781	379
1964	..	..	..	..	..	1,281	1,155	1,460	675
1965	..	..	..	..	..	789	912	911	463
1966	..	..	..	..	..	778	976	875	518
1967	..	..	..	..	..	657	754	767	353
1968	..	..	..	..	..	1,100	1,068	1,255	466
1969	..	..	..	..	..	972	923	1,108	600
1970	..	..	..	..	..	1,074	956	1,372	720
1971	..	..	..	..	..	1,217	1,183	1,160	633
1972	..	..	..	..	..	685	745	876	352
District Average (a)						1,000	940	977	553

Rainfall of Tasmania in Districts—continued
(Millimetres)

Period	Derwent Valley	South East	East Coast	West Coast	Flinders Island
	Fruit Growing, Grazing, Forestry		Dairy Farming	Mining	Grazing
1963	456	500	620	1,861	685
1964	787	814	931	2,946	951
1965	557	703	658	2,377	646
1966	639	788	729	1,982	661
1967	511	641	573	1,839	631
1968	739	725	559	3,167	671
1969	734	879	1,022	2,422	814
1970	824	990	1,225	2,507	1,021
1971	845	944	1,044	2,458	959
1972	609	612	496	2,121	583
District Average (a)	679	749	823	2,324	740

(a) Long-term annual average based on 60 years of record.

(The section on Climate was prepared by the Bureau of Meteorology)

REPTILES AND AMPHIBIANS OF TASMANIA

(The following article was contributed by Mr. A. Hewer and Mr. B. C. Mollison, B.A.)

Introduction

Recent discoveries of new species of small vertebrates in Tasmania indicate that the island has not yet been adequately explored for these animals. Since 1942 a freshwater fish, a frog and some five new reptiles have been recorded. It is possible that some isolated reptile and amphibian species may yet be discovered in the State. However, the following list is confined to species known to exist in Tasmania and which are well represented in museum collections.

Excluded from this list are several previously recorded species which were apparently listed in error—investigations of Tasmania's reptile and amphibian fauna over a number of years have revealed no evidence of the occurrence of these species. From time to time reports are received of unusual reptiles; however, these have proved to be exotic introduced species which have obviously escaped from private collections.

Species

Reptiles: Tasmania's reptiles comprise: 11 members of the skink family (nine small skinks and two blue-tongued lizards); one dragon; three land snakes; three sea snakes; and three marine turtles. (Sea snakes and marine turtles occur as periodical strandings on the coastline.)

Amphibians: There are 10 amphibians in Tasmania—three froglets, three marsh frogs, three tree frogs and one toadlet.

A list of species follows:

Species List									
Scientific Name					Common Name		Frequency of Occurrence		
LIZARDS									
1.	<i>Leiopisma metallicum</i>	(a)	..	..	..	metallic skink	very common		
2.	<i>Leiopisma entrecasteauxii</i>	(a)	..	..	..	D'Entrecasteaux's skink	common		
3.	<i>Leiopisma trilineatum</i>	(b)	..	..	..	three lined skink	common		
4.	<i>Leiopisma pretiosum</i>	(a) (c)	..	..	..	alpine skink	locally common		
5.	<i>Leiopisma ocellatum</i>	(a) (c)	..	..	..	spotted skink	locally common		
6.	<i>Leiopisma delicata</i>	(b)	..	..	..	slender skink	restricted		
7.	<i>Rhodona bougainvillii</i>	(a)	..	..	..	Bougainville's skink	North-east and Bass Strait Islands		
8.	n.a.					Pedra Branca lizard	Pedra Branca Rock		
9.	<i>Egernia whitii</i>	(a)	..	..	..	White's skink	common		
10.	<i>Tiliqua casuarinae</i>	(a)	..	..	..	slender blue-tongued lizard	common		
11.	<i>Tiliqua nigrolutea</i>	(a)	..	..	..	southern blue-tongued lizard	common		
12.	<i>Amphibolurus diemensis</i>	(b)	..	..	..	mountain dragon	common		
SNAKES									
13.	<i>Notechis ater</i>	(a)	..	..	..	tiger snake	common		
14.	<i>Denisonia superba</i>	(a)	..	..	..	copperhead snake	common		
15.	<i>Denisonia coronoides</i>	(a)	..	..	..	white lipped whip snake	common		
16.	<i>Laticauda laticaudata</i>		..	..	..	black banded sea snake	rare		
17.	<i>Hydrophis ornatus</i>		..	..	..	spotted sea snake	uncommon		
18.	<i>Pelamis platurus</i>		..	..	..	wandering sea snake	summer visitor		
TURTLES									
19.	<i>Dermochelys ceriacea</i>		..	..	..	luth or leathery turtle	summer visitor—east coast mainly		
20.	<i>Caretta caretta gigas</i>		..	..	..	loggerhead turtle	summer visitor—west coast mainly		
21.	<i>Eretmochelys imbricata</i>		..	..	..	hawksbill turtle	east coast, rare		
AMPHIBIANS									
22.	<i>Crinia laevis</i>		..	..	..	smooth froglet	locally common		
23.	<i>Crinia signifera</i>		..	..	..	brown froglet	common		
24.	<i>Crinia tasmaniensis</i>	(c)	..	..	..	Tasmanian froglet	common		
25.	<i>Limnodynastes dorsalis</i>		..	..	..	burrowing frog	common		
26.	<i>Limnodynastes tasmaniensis</i>		..	..	..	spotted marsh frog	common		
27.	<i>Limnodynastes peronii</i>		..	..	..	Peron's marsh frog	north-west coast only		
28.	<i>Hyla aurea</i>		..	..	..	green and gold tree frog	common		
29.	<i>Hyla ewingii</i>		..	..	..	brown tree frog	common		
30.	<i>Hyla burrowsii</i>	(c)	..	..	..	Tasmanian tree frog	western Tasmania only		
31.	<i>Pseudophryne semimarmorata</i>		..	..	..	southern toadlet	common		

(a) Ovoviviparous, i.e. the eggs are retained in the oviducts (where the young undergoes its development) instead of being laid.

(b) Oviparous i.e. eggs are laid prior to hatching.

(c) Endemic to Tasmania.

Habitats

Variations in habitat determine local occurrence of species (their general distribution throughout the State is dealt with in the following section). The following lists the various habitats occurring in Tasmania and indicates the various reptile and amphibian species dwelling in each.

- (i) *Wet Eucalypt and Rain Forests*: Contain only the metallic skink, an occasional tiger snake and the brown and Tasmanian tree frogs.
- (ii) *Alpine and Sub-alpine Vegetation*: Has the same species as (i) plus the alpine, spotted and D'Entrecasteaux's skinks and the brown and Tasmanian froglets.
- (iii) *Open Lowland and Dry Sclerophyll Forests*: Are the habitat of all the skinks, snakes and frogs with the exception of the Tasmanian tree frog.
- (iv) *Coastal Tea-tree Swamps and Surrounding Areas*: Are the stronghold of the copperhead snake and all three marsh frogs, but most Tasmanian frogs may be found in this habitat, the exception being the Tasmanian tree frog.
- (v) On suitable substrates of open plains and stony rises all the reptiles may occur; the dominant species being the green and gold and brown tree frogs, the spotted marsh frog and the brown froglet.
- (vi) *Wet Sedgelands of the West and South*: Carry isolated populations of D'Entrecasteaux's skink and the tiger and whip snakes. Dense populations of the brown and Tasmanian froglets and the brown and Tasmanian tree frogs occur. These four species breed in pools in the marshy areas. Wherever the ranges of the brown and Tasmanian froglets overlap, the latter prefers slow running water as its breeding habitat.

Distribution of Species

Distribution is governed by suitable habitat which, despite Tasmania's small size, is extremely variable over short distances. For this reason a species common in one area may not occur a mile away. Most species are very sensitive to their own particular habitat and are therefore very local in distribution; however, two species that are common throughout Tasmania at altitudes up to 1,065 metres are the brown tree frog and the metallic skink.

In the following list the number prefixing each species corresponds with the number allocated to the species in the preceding table; for common names see the table.

Lizards

- (1) *Leiopisma metallicum*: The most widespread of the skink family in Tasmania and is found in most habitats at altitudes up to 1,065 metres.
- (2) *Leiopisma entrecasteauxii*: Frequents the midlands and east coast areas and northern coastal plains.
- (3) *Leiopisma trilineatum*: Favours sandy country and occurs at altitudes up to 915 metres.
- (4) *Leiopisma pretiosum*: This species is very common among boulders on rocky slopes above 915 metres.
- (5) *Leiopisma ocellatum*: Dwells in boulder fields and rocky coastline areas. It is locally common throughout suitable areas of the State; its range extends to alpine areas.
- (6) *Leiopisma delicata*: This species appears to be restricted to the Tamar Valley area.
- (7) *Rhodona bougainvillii*: Common on Waterhouse Island; some specimens have been collected from coastal areas of the north-east.
- (8) *Pedra Branca Lizard*: An extremely rare species, restricted to Pedra Branca Rock to the south of Tasmania.

- (9) *Egernia whitii*: Frequents boulder fields and rocky coastlines.
- (10) *Tiliqua casuarinae*: Common and widespread throughout the State.
- (11) *Tiliqua nigrolutea*: Common and widespread throughout the State.
- (12) *Amphibolurus diemensis*: Has a widespread distribution ranging from coastal country to mountain areas.

Snakes

(13) *Notechis ater*: Common in most areas of the State; some large specimens are obtained from the lake country at altitudes over 1,200 metres. The mutton bird islands of Bass Strait are renowned as the home of some of Australia's largest tiger snakes—snakes 1.8 metres (six feet) long are not uncommon.

(14) *Denisonia superba*: Normally found in lowland marshes around Tasmania and is less frequent in open lowland and dry sclerophyll forest areas. It also occurs on islands of the Furneaux Group.

(15) *Denisonia coronoides*: This species is common throughout Tasmania and occurs at altitudes up to 1,500 metres.

(16) *Laticauda laticaudata*; (17) *Hydropsus ornatus*; (18) *Pelamis platurus*: The first two are rare visitors to Tasmania; the last is a summer visitor to Tasmanian waters.

Turtles

(19) *Dermochelys coriacea*: A summer visitor normally to the east coast.

(20) *Caretta caretta gigas*: A summer visitor normally to the west coast.

(21) *Eretmochelys imbricata*: A rare species in the Tasmanian region—infrequently reported from the east coast.

Frogs

Restricted water or small pools are frequently dominated by one species of frog. However, the only frogs distinctly separated in distribution are (i) the Tasmanian tree frog, confined to the rain forest and adjacent areas of the western part of the State, and the green and gold tree frog which occurs only in the eastern half and the coastal areas of the north coast of Tasmania; (ii) spotted marsh frog (midlands and east coast areas) and Peron's marsh frog (marshes along coastal plains of the north-west).

(22) *Crinia laevis*: Has a State-wide distribution, but tends to occur in local pockets determined by suitable habitat.

(23) *Crinia signifera*: Occurs in large numbers in the wet sedgelands of the west and south-west of the State and is also common throughout the remainder of the State.

(24) *Crinia tasmaniensis*: Inhabits the wet sedgelands of the west and south-west and low mountains of the northern and eastern parts of the State.

(25) *Limnodynastes dorsalis*: Most common in the eastern half of the State and coastal areas. It is found in some inland areas e.g. Lake St Clair area.

(26) *Limnodynastes tasmaniensis*: Found throughout the midlands and east coast areas. The range of this frog does not overlap with that of the *Limnodynastes peronii*.

(27) *Limnodynastes peronii*: Occurs only in marshes and along coastal plains of the north-western part of the State. Its restricted distribution accounts for its being 'lost' to the Tasmanian list from the days of early settlement until 're-discovered' in the 1950s.

(28) *Hyla aurea*: Inhabits the midlands and east coast areas and northern coastal plains.

(29) *Hyla ewingii*: This frog is common throughout Tasmania and is found at altitudes up to 1,100 metres.

(30) *Hyla burrowsii*: Confined to the western part of the State where it inhabits rainforests and adjacent areas and the wet sedgeland of the south-west.

Toadlet

(31) *Pseudophryne semimarmorata*: Is widely distributed through the eastern half of the State and north coast and also occurs in certain inland areas. It thrives in sandstone country and areas characterised by loose soils.

Determining Distribution

Whereas the distribution of lizards and snakes can only be determined by the systematic collection of specimens, frogs can be located by simply listening for their calls, usually at night. All frogs call as a preliminary to mating except the tree frogs which may call at any time of the year, particularly during wet periods. The brown tree frogs, in particular, are extremely vocal prior to the approach of rain.

Tree frogs call continuously in short bursts, but only the green and gold tree frog commonly calls by day.

The call of marsh frogs consists of a single note repeated at frequent intervals, though, in large colonies there is a continuous chorus which at times can be quite deafening. The spotted marsh frog calls with a sharp clicking sound, whereas the burrowing frog has a more resonant voice which can be likened to the plucking of a banjo string hence the name 'banjo frog'.

The three froglets and the toadlet call with a staccato voice in continuous short bursts.

Reproduction

Reptiles

Only three Tasmanian lizards are oviparous (i.e. they lay eggs)—they are the three lined skink (*Leiopisma trilineatum*), slender skink (*Leiopisma delicata*) and the mountain dragon (*Amphibolurus diemensis*). These species frequently lay their eggs in a communal nest i.e. several females use the same nest. Other Tasmanian lizards and the three land snakes give birth to living young—the eggs develop and hatch inside the female prior to birth (i.e. these species are ovoviviparous).

A clutch of eggs or young for the lizards may be from three to seven—normally four or five eggs or young. Snakes produce 15 or more young each season with larger individuals giving birth to as many as 50 or even 100 young. Of the reptiles only the two blue-tongued lizards and the mountain dragon are not cannibalistic. The other reptile species eat their own young as well as the young of other species.

Amphibians

Most Tasmanian frogs breed in the spring months, but two are autumn breeders. The smooth froglet and the Tasmanian toadlet lay eggs in damp depressions in the ground which are normally flooded by autumn rains. The eggs of these two are relatively large and frequently the tadpole develops to an advanced stage in the egg, emerging immediately the egg is placed in water.

Of the spring breeders, the marsh frogs produce frothy floating egg-masses. The froglets lay large yolked eggs deposited on the bottom of ponds or slow moving streams, whereas the tree frogs lay adhering masses of eggs in submerged vegetation.

Most species will lay in any available water and it is not unusual to see large numbers of tadpoles struggling in pools which are rapidly drying up. Probably the species most affected in this way is the brown tree frog which will breed at any time of the year following a wet period. Only the marsh frogs and the green and gold tree frogs seek permanent pools for egg laying.

Description of Species

The following gives a description of more common reptile and amphibian species found in Tasmania.

(1) *Leiopisma metallicum* (*Metallic skink*)

Average size 135 mm; 24-28 scales around the middle of the body.

The colour of this species is extremely variable and includes all shades from grey through brown to deep sepia. The back is usually more or less spotted; the sides are black and spotted with lighter markings. Colour underneath is also variable and, although usually grey or yellowish, a large number of specimens have been observed with the under-side coloured a beautiful coppery red.

This is the most common lizard in Tasmania. Its total range includes Australia and adjacent islands. When handled by the tail the lizard invariably drops it off.

Its diet is insects and their larvae. In captivity it will eat earwigs.

(2) *Leiopisma entrecasteauxii* (*D'Entrecasteaux's skink*)

Average size 125 mm; 28-32 scales around the middle of the body.

Colour is olive brown above with three black longitudinal bands; sides are dark and spotted. Males usually have reddish lateral stripes extending from the ears to the hind legs. Colour of the stripe is variable from bright scarlet to salmon, and is absent in females. Under-surfaces are usually yellowish to salmon.

The lower eyelid is transparent; details of the eye can be clearly seen when the eye is closed.

It eats insects and their larvae.

(3) *Leiopisma trilineatum* (*Three lined skink*)

Average size 175 mm; 26-28 scales around the middle of the body.

Colour is bronze olive above with a dorsal streak of dark brown; sides are black, edged above and below with a white line. Under-surfaces are greenish-grey to white. In newly hatched specimens there is a bright salmon blotch on each side of the head.

The lower eyelid is transparent.

Its diet comprises insects and their larvae.

(4) *Leiopisma pretiosum* (*Alpine skink*)

Average size 120 mm; 34-38 scales around the centre of the body.

The colour is variable—usually olive above with small dark and light spots. Lower surfaces are greenish. Some specimens, observed several years ago on Mt Hugel (near Lake St Clair), were greenish with bright golden spots.

This lizard is also an insect eater (alpine grasshoppers form a large part of the diet).

(5) *Leiopisma ocellatum* (*Spotted skink*)

Average size 145 mm; 50-54 scales around the middle of the body.

It is pale olive to grey with small dark brown or black spots. The sides are usually dark brown with conspicuous eye spots. Under-surfaces are usually greyish sometimes spotted.

It eats insects and their larvae.

(6) *Leiopisma delicata* (*Slender skink*)

Average size does not exceed 150 mm.



Preparing sheep carcass for export

[Dept of Film Production]



Record Oatlands sheep sale 1973

[Dept of Film Production]

Its colour is metallic brown; fine dark lateral lines extend from the tip of the nose, above the eyes and legs to the base of the tail. Underneath the lizard is off-white to pale grey and sometimes has fine dark markings, especially on the base of the tail.

Its diet comprises insects and their larvae.

(7) *Rhodona bougainvillii* (*Bougainville's skink*)

Average size does not exceed 185 mm.

The colour is grey marked with four broken fine black lines which run the length of the body. Heavy black lateral lines extend from behind the eyes to the base of the tail. Underneath the lizard is pale cream and under the tail butter-yellow. The whole under-side is punctuated with fine black markings.

It eats insects and their larvae.

(8) *Pedra Branca lizard*

General colour is similar to *L. pretiosum*. Both specimens sighted by the authors were somewhat larger than that species.

(9) *Egernia whitii* (*White's skink*)

Average size 250 mm.

The upper-surfaces of this lizard are usually brown with two dark longitudinal bands which are conspicuously spotted white or yellow. Sides are usually spotted. Under-surfaces vary—they are usually pinkish to creamy-yellow. Edges of eyelids and ear lobules are always white.

Its diet is mainly insects—in captivity it will eat small soft fruits.

(10) *Tiliqua casuarinae* (*Slender blue-tongued lizard*)

Average size 310 mm; 22-24 smooth scales around the middle of the body.

The colour is variable from near black through various shades of brown to brick red. This is the most handsomely marked of all Tasmanian lizards, many specimens are mottled and banded with several colours including purple and red. Under-sides are usually yellow and lined and marbled with black.

It is easily recognised by its long slender body and very small legs giving it a snake like appearance. When in a hurry it progresses by wriggling the body as well as using its legs, and when annoyed, it will make a false strike and flick out its tongue in the manner of a snake. It is, however, quite harmless and easily tamed. A peculiar habit of this species is the rapid vibration of its blue tongue when danger threatens.

The lizard's diet comprises insects and their larvae, snails, slugs, etc.

(11) *Tiliqua nigrolutea* (*Southern blue-tongued lizard*)

Average size 400 mm. Common in all districts. Usually referred to quite erroneously as 'goanna'.

This lizard is brownish or olive above with dark brown to black bands. Under-sides are yellowish and sometimes spotted with brown.

It is squat in appearance with short sturdy legs, a wedged shaped snout and rounded, tapered tail.

The diet includes grubs, snails, slugs, etc.; sometimes it feeds on small fruits such as strawberries.

(12) *Amphibolurus diemensis* (Mountain dragon)

Average size 200 mm.

Colour is from brown or grey above, sides are darker with a series of angular dark spots down each side of the back; under-surfaces are paler. The inside of the mouth is a pale flesh colour, the tongue is a deeper colour.

This species is easily tamed and makes a charming pet.

It eats insects.

(13) *Notechis ater* (Tiger snake)

Average size is 135 cm, but some specimens attain a length of 180 cm and over. The mutton bird islands of Bass Strait are the home of some of Australia's largest tiger snakes.

The tiger snake is black on the upper-surface with a yellowish ventral surface. Banding, common to mainland species, is absent from the Tasmanian tiger snake.

The tiger snake has a rounded nose and a heavy thick body. It is a member of the *Elapidae* family; it is front-fanged and injects venom into the victim from a poison sack via a hollow in each fang. The venom attacks the victim's nervous system and causes blood clotting. The tiger snake will normally move off when approached.

Diet includes frogs, rats, mice, small reptiles and young birds (the tiger snake will climb low trees after young birds).

(14) *Denisonia superba* (Copperhead snake)

Average size is from 75 cm to 105 cm.

Its colour is variable—from reddish-brown to almost black. Belly scales are reddish or yellowish and often darker towards the tail.

The copperhead is a thick bodied snake; it is a member of the *Elapidae* family and injects poison in a similar manner to the tiger snake. However, it rarely bites people but its poison can kill—the venom causes paralysis and severe bleeding.

The diet includes frogs, lizards and other snakes—it is actively cannibalistic and will readily eat its fellow copperheads.

(15) *Denisonia coronoides* (White lipped whip snake)

Average size is 35 cm to 45 cm long.

This snake is normally dark grey, but has white lips as a distinguishing feature.

This small thin-bodied snake, also a member of the front-fanged *Elapidae* family, is not dangerous to a healthy adult—a bite will normally cause only swelling and stinging.

Diet comprises frogs and insects.

(22) *Crinia laevis* (Smooth froglet)

Average length 27 mm.

This frog is coloured slate grey above, usually with a number of red or yellow spots. Sides are marbled and the under-side is grey to white.

The skin is very smooth; toes are not webbed. This species breeds during the Autumn months.

Its diet is principally insects.

(23) *Crinia signifera* (Brown froglet)

Average length 27 mm.

The colour ranges from brown to grey, often with quite ornate markings on the back; under-sides are grey, marbled or spotted with black.

Its toes are not webbed. Breeding occurs in Winter and Spring.

It eats mainly insects.

(24) *Crinia tasmaniensis* (Tasmanian froglet)

Average size 27 mm.

Its colour is similar to *C. signifera*. The under-side of the male is usually blood red near the thighs while the under-side of the female is beautifully rose coloured.

Its diet comprises insects.

(25) *Limnodynastes dorsalis* (Burrowing frog)

Average size 75 mm.

The frog is brown above, irregularly marked or spotted. Its under-surface is whitish or lightly spotted with brown or blue.

This frog is best known for its loud booming call, not unlike the plucking of a banjo string; it is sometimes called 'banjo frog'. Its toes are not webbed.

The frog's diet comprises insects.

(26) *Limnodynastes tasmaniensis* (Spotted marsh frog)

Average length 45 mm.

The colour is variable—usually yellowish brown to grey with dark oval spots and a yellowish central stripe along the back. In some specimens the stripe may be orange. Under-sides are whitish.

Toes are not webbed. Breeding takes place during late Winter and Spring.

(27) *Limnodynastes peronii* (Peron's marsh frog)

Average length 55 mm.

It is brownish or olive above with black spots merging into longitudinal stripes on the back. Under-sides are spotted with brown.

Toes are not webbed; breeding occurs during Spring.

The frog's diet comprises insects.

(28) *Hyla aurea* (Green and gold tree frog)

Average length 80 mm.

The frog's colouration is variable but is usually bright green above, blotched and banded with yellow and gold. Thighs are blue, under-sides are whitish.

Toes are partly webbed. As in all tree frogs the toes have a small disc or pad at the extremity. This acts like a small 'sucker' and enables the frog to climb. *Hyla aurea* is a Spring-breeder.

It eats mainly insects; however, in captivity it will eat snails, grubs and earthworms.

(29) *Hyla ewingii* (Brown tree-frog)

Average length 42 mm.

The colour varies from yellowish grey to dark brown above, with a wide dorsal stripe, usually dark brown or grey. A characteristic dark patch leads backwards from the eye. Under-sides are usually creamy-white.

Toes are partly webbed with characteristic pads at their extremities. *Hyla ewingii* will breed in any season.

Insects make up its diet.

(30) *Hyla burrowsii* (Tasmanian tree frog)

Average length 75 mm.

Colour varies but it is mostly a cryptic pattern of grey, fawn, brown and some green. Some specimens are a beautiful lime green with no other markings. There is a characteristic green mark extending backwards from the eye. Under-sides are creamy-white.

Toes are webbed and equipped with pads. *Hyla burrowsii* is an expert climber.

(31) *Pseudophryne semimarmorata* (Southern toadlet)

Average length 27 mm.

The toadlet is brown to grey, spotted with black on dorsal surfaces. Under-sides are boldly marbled bluish and black; thighs are bright orange yellow. Its skin is warty.

Toes are not webbed. Breeding occurs during Autumn. Normal means of locomotion is by walking on all fours rather than hopping.

The diet of this species comprises insects.

Other Aspects

Effect of Heat on Reptiles: Contrary to popular belief, lizards and snakes do not like the hot sun except for short periods. Prolonged exposure causes them extreme distress and can be fatal—all species are most active in the early morning and late afternoons during the Summer months. Severe cold is likewise detrimental—frosts being a principal natural control over reptile populations.

Hibernation: The three snakes, the two blue-tongues and the mountain dragon go into full hibernation during the winter months. The smaller skinks can often be seen on sunny days at low altitudes, even in the middle of winter.

At the time of writing, no Tasmanian reptile or amphibian species appeared to be in imminent danger of extinction from the activities of man. In fact, many frog species benefit considerably from earth moving and water conservation activities. The copperhead snake, in its restricted tea-tree swamp habitat, is probably the most threatened, but it also occurs on Flinders, Big Dog, Cape Barren and Little Green Islands in Bass Strait. Domestic cats and poultry often cause local extinctions of the smaller lizards and frogs. Similarly, fire adversely affects all species locally; however, the greatest natural controls in reptile populations would probably be frost, and, in the case of frogs, drought.

All Tasmanian snakes are venomous, but casualties are rare. It is unlikely that the bite of a whip snake would seriously affect a healthy adult. Should a person be bitten by either of the other species it is essential that he seeks immediate medical aid. Normally snakes are not aggressive unless attacked or trodden on; in fact, they will avoid man if possible.

Frogs of the genus *Hyla* are generally known as tree frogs but the only truly arboreal species in Tasmania are the Tasmanian tree frog, and, surprisingly, the metallic skink. Both have frequently been observed at heights greater than 15 metres in wet forest areas. Tiger snakes and the other two tree frogs will climb in low trees and shrubs, the former in search of young birds.

Chapter 3

GOVERNMENT AND ADMINISTRATION

GOVERNMENT IN TASMANIA

Historical Summary

In its short history, Tasmania has experienced diverse modes of government; beginning with autocratic rule, it graduated to responsible self-government as a British colony and finally surrendered some sovereign powers to take its place as an original State of the Australian Commonwealth.

The evolution of the system of bi-cameral responsible government within a Federal system falls into five distinct phases:

1803-1825: The island was part of the colony of New South Wales and its lieutenant-governors and commandants were subordinate to the Governor in Sydney.

1825-1851: On 14 July 1825, Van Diemen's Land was created a separate colony with a Lieutenant-Governor directly responsible to the Secretary of State in London. A nominated Legislative Council was established.

1851-1856: The passage of the *Australian Constitution Act* 1850 by the Parliament in London was followed by the establishment of a new Legislative Council in which 16 members were elected and eight were nominees of the Lieutenant-Governor. The newly constituted Council first sat on 1 January 1852.

1856-1901: By the *Constitution Act* 1854, two houses of parliament, the House of Assembly and the Legislative Council were established, both houses being elected. The first Parliament sat on 2 December 1856 (the first year in which the island was officially called Tasmania); representatives of the Crown carried the title of Governor.

1901: The Tasmanian Constitution was limited by the establishment of the Commonwealth Constitution. (The *Commonwealth of Australia Constitution Act* 1900 granted legislative and executive powers upon certain specified matters to the Commonwealth Parliament and Government, some of them exclusively, and provision was made that, in the case of inconsistency of valid laws, the Commonwealth law should prevail.) In effect, the Parliament of Tasmania may make laws operative within the State upon all matters not within the exclusive power of the Commonwealth Parliament but, on those matters for which the Commonwealth may also legislate, the Tasmanian law may be superseded by the passing of a Commonwealth Act.

Introduction

Government in Tasmania is exercised at three levels:

- (i) The Commonwealth, with authority based on a written constitution, and centred in Canberra.
- (ii) The State, with residual powers, and centred in Hobart.
- (iii) The Cities and Municipalities, with authority derived from State Acts, and operating in 49 sub-divisions of the State.

This Chapter deals primarily with the State Government and with Tasmanian representation in the Commonwealth Parliament. The administration of the cities and municipalities is described in Chapter 4, 'Local Government'.

Tasmanian Representation in Commonwealth Parliament

The Parliament of the Commonwealth of Australia consists of the Queen, a Senate and a House of Representatives. The Queen is represented in Australia by the Governor-General.

The Senate

The founders of the Australian Constitution had in mind that the Senate should give expression to the interests of the States as partners in the federation; in other words, the Senate should be a States' house. Accordingly, the proportional representation suggested by the varying populations of the States was disregarded, and it was provided that each State should be represented by six senators; the first Senate in the first Parliament comprised 36 members of whom six represented Tasmania. The numbers remained unchanged until the *Commonwealth Representation Act 1948* when each State became eligible to elect 10 senators.

The Senate was also envisaged as a house of review and accordingly continuity of membership was provided by requiring only one-half of the Senate to retire every three years, and for each senator's term to be six years. If the normal pattern of three-yearly rotational retirement is broken by a double dissolution of both Houses, provision exists to elect a complete Senate with members divided into two numerically equal classes: the first five senators declared elected in each State serve a six-year term; the other five elected serve a three-year term. After a normal rotational election, senators' terms commence from the following first day of July; in the case of an election for the whole Senate, terms commence from the first day of July preceding the election.

The House of Representatives

In designing the House of Representatives, the founders envisaged a legislative body representing the national interest and provided that the number of members chosen in the several States must be in proportion to population, but that no original State should have less than five members. The first House of Representatives in 1901 had 75 members of whom five were elected in Tasmania. The term of office was set as three years.

The *Representation Act 1948* increased the House of Representatives to 123, although only 121 were elected from the States; the Northern Territory and the Australian Capital Territory each had one member with restricted voting powers. At 1 January 1972, the House of Representatives stood at 125 members, 123 from the States and one each from the Northern Territory and the Australian Capital Territory. Throughout the whole period since Federation, Tasmanian representation has remained constant at five members.

Electoral redistributions were undertaken soon after the 1947, 1954 and 1966 population censuses, the most recent being carried out by the Electoral Commissioners in 1968. The 1968 recommendations were accepted by the Federal Parliament and their net effect was to increase membership of the Federal House of Representatives by one to 125 members. The 1969 Federal House of Representatives election was the first Commonwealth election to be conducted in accordance with the new boundaries and subsequent to the election State representation in the House of Representatives became: N.S.W., 45; Victoria, 34; Queensland, 18; South Australia, 12; W.A., nine; Tasmania, five. The A.C.T. and Northern Territory each returned one member with full voting rights.

The following table indicates the state of the House of Representatives at the election immediately following an electoral redistribution:

Membership: House of Representatives

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T. (b)	Total
1948	28	20	10	6	5	5	1	..	75
1949 (c)	47	33	18	10	8	5	1	1	123
1955 (c)	46	33	18	11	9	5	1	1	124
1969 (c)	45	34	18	12	9	5	1	1	125

(a) Representative in House since 1922; full voting rights granted 1969.

(b) Representative in House since 1949; full voting rights granted 1966.

(c) Election following an electoral redistribution.

Qualifications of Voters for Commonwealth Elections

An elector on a Federal roll is required by law to vote both in elections for the House of Representatives and for the Senate. An elector is any person, male or female, aged at least 18 years who is a British subject, who has lived in Australia for six months continuously and whose name appears on the roll. (Commonwealth legislation reducing the voting age to 18 years became effective from 21 March 1973.) Residence in an electoral sub-division for at least one month is necessary to enable a qualified person to enrol. Enrolment is compulsory.

Qualifications of Candidates—Either Federal House

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, 18 years of age or over, who has resided in the Commonwealth for at least three years and who is, or who is qualified to become, an elector of the Commonwealth.

The term of office for a member of the House of Representatives is three years unless the House is dissolved earlier by the Governor-General.

Disqualification as Elector or Member

Grounds for disqualification as an elector include being of unsound mind, or being convicted and under sentence for offences punishable by imprisonment for a year or longer. Grounds for disqualification as a member of either House include these prohibitions and also the following: membership of the other House, being an undischarged bankrupt or insolvent, holding office for profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons.

Elections for the Senate

In Senate elections each State is an electorate. Electors are required to cast a vote for every candidate standing within the State in order of their preference, and election of members is carried out in accordance with the principles of proportional representation by the single transferable vote (see 'Elections for House of Assembly' in the 1971 *Year Book* for a description of similar electoral principles). If a vacancy occurs in the Senate, the appropriate State Government nominates a replacement who sits until the next Commonwealth general election (either for the House of Representatives or for the Senate), when an election is held to fill the vacancy. It is usual for appointed replacements to be of the same party as those they replace, although no law exists to require it.

If a senator fills a vacancy through an election held at the same time as an election for the House of Representatives, his term will be the same as if the vacating member's term were to run its full course. If the vacant seat is contested at an ordinary Senate election, then six, instead of five candidates, will be elected in the State affected and the senator last elected will fill the vacancy for a term shorter than the full six years.

The following table lists the senators for Tasmania together with party affiliation and year of retirement:

Senate: Tasmanian Members

Senator	Party Affiliation	Retires in Year
Devitt, Donald Michael	A.L.P.	1977
Lillico, Alexander Elliot Davidson	Liberal	1977
Marriott, John Edward	Liberal	1977
O'Byrne, Justin Hilary	A.L.P.	1977
Poke, Albert George	A.L.P.	1974
Rae, Peter Elliot	Liberal	1974
Townley, Michael	Independent	1977
Turnbull, Reginald John David	Independent	1974
Wriedt, the Hon. Kenneth Shaw (a)	A.L.P.	1974
Wright, Reginald Charles	Liberal	1974

(a) Commonwealth Minister for Primary Industry.

Elections for the House of Representatives

The Commonwealth is divided into 125 single-member electorates and electors are required to cast a vote for every candidate standing within the electorate in order of their preference. Election of members is carried out in accordance with the principles of the absolute majority through use of the alternative vote (see 'Elections for Legislative Council' for a description of similar electoral principles). If a vacancy occurs in the House of Representatives, it is filled by holding a by-election in the electorate concerned. The last general election was held on 2 December 1972.

The following table lists the Tasmanian members of the House of Representatives together with the party affiliation and electorate of each member:

House of Representatives: Tasmanian Members

Member	Party Affiliation	Electoral Division
Barnard, the Hon. Lance Herbert (a)	A.L.P.	Bass
Coates, John	A.L.P.	Denison
Davies, Ronald	A.L.P.	Braddon
Duthie, Gilbert William Arthur	A.L.P.	Wilmot
Sherry, Raymond Henry	A.L.P.	Franklin

(a) Deputy Prime Minister and Commonwealth Minister for Defence.

Division of Power

Under the *Commonwealth of Australia Act* 1900, the State of Tasmania surrendered part of its sovereignty and it was possible, at that point in time, to classify the totality of powers to be vested in the Commonwealth and the State as follows:

- (i) Exclusive powers to be exercised by the Commonwealth alone.
- (ii) Concurrent powers to be exercised both by the Commonwealth and the State (subject to the supremacy of Commonwealth law in cases of inconsistency).
- (iii) Residual powers to be exercised by the State.

Since the establishment of the Commonwealth of Australia, there have been considerable changes in functions actually performed by the two Governments due to constitutional amendments and to inter-governmental agreements affecting function. It will suffice, therefore, to list the main fields of activity of the Commonwealth Government today:

Foreign affairs and diplomatic representation; maintenance of the armed forces; customs and excise; posts and telegraphs; control of broadcasting and television; control of civil aviation; repatriation of ex-servicemen; immigration; industrial arbitration for national industries; control of coinage and currency; overseas trade promotion; employment service; age, invalid and widows' pensions; national health benefits; federal territories and overseas dependencies; census and statistics; meteorological service; Commonwealth courts and police; control of banking; collection of sales and income taxes; housing assistance and war service homes; scientific and industrial research; management of State and National debt; lighthouses and navigation. (For a fuller treatment of this subject, the *Constitution* in Chapter 1 of the *Commonwealth Year Book* is recommended.)

The departments, authorities, etc. of the Tasmanian Government are listed in a later section of this Chapter headed 'The Present System of Government'.

The State Governor

Introduction

Democratic forms of government exhibit great variety but, with regard to the selection and role of the head of State, two clearly conflicting concepts can be discerned. In the American tradition, the head of State is elected and must necessarily play an active role in party politics. In the British tradition, the head of State is the holder of hereditary office and is expected to be above and beyond party politics. Tasmania follows the British tradition and accepts as its Queen, Elizabeth the Second. Her Majesty appoints the Governor who acts as head of State, generally for a five-year term. The relationship existing between the Queen and the British Parliament is broadly the same as that existing between the Governor and the Tasmanian Parliament.

Authority

The Governor's authority is derived from Letters Patent (issued in 1900) under the Great Seal of the United Kingdom, from the Commissions of Appointment and from the Governor's Instructions issued under the Royal Sign Manual and Signet.

Powers and Duties

The Governor summons and prorogues Parliament; in special circumstances he may dissolve it after considering the advice of his Premier. Bills which have passed all stages in Parliament are submitted to the Governor for his assent although there are some subjects which are specifically reserved for the Royal Assent (e.g. a Bill granting land or money to the Governor). He opens each session of Parliament by outlining the legislative programme of the Government which, irrespective of its party affiliation, he refers to as 'My Government', but takes no other part in the sittings of either House.

His executive powers include the appointment of Ministers of the Crown, judges and other important State officers but not those whose appointments may be made by certain statutory corporations. By appointing Ministers of the Crown, the Governor creates the Executive Council of the day and he is required by his instructions to be guided by the advice of this body. Should he feel it necessary to act against the advice of the Executive Council, he may do so, but the reasons for such action must be immediately reported to the Queen. The Governor's relations with the Executive Council and with Cabinet are more fully discussed in the section headed 'The Cabinet and Executive Government'.

The Governor has the power to pardon, reprieve and remit sentences and fines. In such cases he is required to seek the advice of at least one Minister. He also has the power to appoint a deputy to act in his stead during his absence (for a period of less than one month) from the seat of government, whether within or outside the State. If the Governor is to be absent for a period in excess of one month, the Chief Justice, by virtue of the Dormant Commission, acts as Administrator of the Government. Further reference to the Governor's discretionary powers will be found under the section headed 'Dissolution of Parliament'. On all official State occasions, he performs the ceremonial functions as the representative of the Crown.

Present Governor

All Tasmanian Governors since the first settlement have come from the United Kingdom, although in some other States and the Commonwealth, Australians either hold or have held the vice-regal office. Lt-General Sir Edric Bastyan, a former Governor of South Australia, was sworn-in on 2 December 1968 as Governor of Tasmania succeeding Lt-General Sir Charles Gairdner.

Honours

Another function of the Governor is the investing of all honours awarded to Tasmanians in the Queen's Birthday and New Year Honours Lists, except for knighthoods which are normally dubbed by the Governor-General in Canberra.

The Administrator

In the Letters Patent of 1900 (as amended in 1934), provision was made for a Lieutenant-Governor to administer the Government in the event of the Governor's death, incapacity, removal or absence from the State. Should there be no Lieutenant-Governor then appointed or should he be unable to act, the duties of the Governor were to be discharged by the Administrator. Attached to the Letters Patent was a Dormant Commission authorising the Chief Justice to act as Administrator 'in the event of the death, incapacity or absence of the Governor and the Lieutenant-Governor, if any'.

Lieutenant-Governors have often acted in place of the Governor but since 1943 it has been customary for the Chief Justice to act as Administrator in accordance with the provisions of the Dormant Commission which further nominates the next Senior Judge to act in the absence of the Chief Justice. (The last Lieutenant-Governor appointed was Sir John Evans, 1937-1943.)

The present Chief Justice is Sir Stanley Burbury, KBE, who has already acted as Administrator in the intervals between governorships and on other occasions.

Succession of Governors

The next table shows the succession of governors from the time of Lieutenant Bowen's settlement in 1803. The list of Administrators and Lieutenant-Governors is restricted to those whose inclusion is necessary to maintain a continuous time series (i.e. short periods of relief during a governorship are excluded). The title 'governor' was first used by Sir H. E. Fox Young, under whose administration the colony graduated to self-government.

The terms of office fall into four eras: (i) the governor directly responsible to N.S.W.; (ii) governor independent of N.S.W.; (iii) colonial self-government; and (iv) post-federation.

Succession of Governors, Acting Governors, Administrators, etc. from 1803

Name	Designation	Period
(i) 1803-1825		
Lieut John Bowen	Commandant	11. 9.03 - 16. 2.04
Colonel David Collins, R.M.	Lieutenant-Governor	16. 2.04 - 24. 3.10
Lieut Edward Lord, R.M.	Commandant	24. 3.10 - 8. 7.10
Captain J. Murray, 73rd Regt	Commandant	8. 7.10 - 20. 2.12
Major A. Geils, 73rd Regt (a)	Commandant	20. 2.12 - 4. 2.13
Colonel Thomas Davey, R.M.	Lieutenant-Governor	4. 2.13 - 9. 4.17
Colonel William Sorell	Lieutenant-Governor	9. 4.17 - 14. 5.24
Colonel George Arthur (b)	Lieutenant-Governor	14. 5.24 - 3.12.25
(ii) 1825-1855		
Colonel George Arthur (b)	Lieutenant-Governor	6.12.25 - 29.10.36
Lt-Col K. Snodgrass	Administrator	29.10.36 - 5. 1.37
Sir J. Franklin, KCH, R.N.	Lieutenant-Governor	5. 1.37 - 21. 8.43
Sir J. E. Eardley-Wilmot, Bart	Lieutenant-Governor	21. 8.43 - 13.10.46
C. J. La Trobe, Esq.	Administrator	13.10.46 - 25. 1.47
Sir W. T. Denison	Lieutenant-Governor	25. 1.47 - 8. 1.55

Succession of Governors, Acting Governors, Administrators, etc.—*continued*

(iii) 1855-1900

Name	Designation	Period
Sir H. E. Fox Young	Governor	8. 1.55 - 10.12.61
Colonel Thomas Gore Browne, CB	Governor	10.12.61 - 30.12.68
Lt-Col W. C. Trevor, CB	Administrator	30.12.68 - 15. 1.69
Charles Du Cane, Esq.	Governor	15. 1.69 - 28.11.74
Hon. Sir Francis Smith, CJ	Administrator	28.11.74 - 13. 1.75
F.A. Welds, Esq.	Governor	13. 1.75 - 5. 4.80
Hon. Sir Francis Smith, CJ	Administrator	5. 4.80 - 21.10.80
Lt-General Sir J. H. Lefroy, KCMG, CB	Administrator	21.10.80 - 7.12.81
Sir G. C. Strahan, RA, KCMG	Governor	7.12.81 - 28.10.86
Hon. W. R. Giblin, Esq. SJ	Administrator	28.10.86 - 18.11.86
Hon. Sir W. L. Dobson, CJ	Administrator	18.11.86 - 11. 3.87
Sir R. G. C. Hamilton, KCB	Governor	11. 3.87 - 30.11.92
Hon. Sir W. L. Dobson, CJ	Administrator	30.11.92 - 8. 8.93
Rt Hon. J. W. Joseph, Viscount Gormanston, KCMG	Governor	8. 8.93 - 14. 8.00

(iv) 1900—

Sir John Dodds, KCMG	Administrator	14. 8.00 - 8.11.01
Sir A. E. Havelock, GCSI, GCME, GCIE	Governor	8.11.01 - 16. 4.04
Sir John Dodds, KCMG	Lieutenant-Governor	16. 4.04 - 28.10.04
Sir G. Strickland, KCMG	Governor	28.10.04 - 20. 5.09
Sir John Dodds, KCMG	Lieutenant-Governor	20. 5.09 - 29. 9.09
Sir Harry Barron, KCMG, CVO	Governor	29. 9.09 - 8. 3.13
Sir John Dodds, KCMG	Lieutenant-Governor	8. 3.13 - 4. 6.13
Sir William Ellison-Macartney, KCMG	Governor	4. 6.13 - 31. 3.17
Sir Herbert Nicholls	Administrator	31. 3.17 - 6. 7.17
Sir F. A. Newdigate Newdegate, KCMG	Governor	6. 7.17 - 9. 2.20
Sir Herbert Nicholls	Administrator	9. 2.20 - 16. 4.20
Sir W. L. Allardyce, KCMG	Governor	16. 4.20 - 26. 1.22
Sir Herbert Nicholls	Administrator	26. 1.22 - 30.11.23
Hon. N. K. Ewing, Esq.	Administrator	30.11.23 - 13. 6.24
Sir Herbert Nicholls	Administrator	13. 6.24 - 23.12.24
Sir James O'Grady, KCMG	Governor	23.12.24 - 23.12.30
Sir Herbert Nicholls, KCMG	Lieutenant-Governor	23.12.30 - 4. 8.33
Sir Ernest Clark, GCMG, KCB, CBE	Governor	4. 8.33 - 4. 8.45
Sir John Morris	Administrator	4. 8.45 - 24.12.45
Admiral Sir Hugh Binney, KCB, KCMG, DSO	Governor	24.12.45 - 8. 5.51
Sir John Morris, KCMG	Administrator	8. 5.51 - 22. 8.51
Rt Hon. Sir Ronald Cross, Bart, KCMG, KCVO	Governor	22. 8.51 - 4. 6.58
Hon. Sir Stanley Burbury, KBE	Administrator	4. 6.58 - 21.10.59
Rt Hon. the Lord Rowallan, KT, KBE, MC	Governor	21.10.59 - 25. 3.63
Hon. Sir Stanley Burbury, KBE	Administrator	25. 3.63 - 24. 9.63
Lt-General Sir Charles Gairdner, KCMG, KCVO, KBE, CB	Governor	24. 9.63 - 11. 7.68
Hon. Sir Stanley Burbury, KBE	Administrator	11. 7.68 - 2.12.68
Lt-General Sir Edric Bastyan, KCMG, KCVO, KBE, CB	Governor	2.12.68 -

(a) Originally the Launceston settlement had its own officials appointed from N.S.W. Lieut-Governor W. Paterson was followed, as Commandant, by Captain J. Brabyn and Major G. A. Gordon. The next, Captain J. Ritchie, took office on 1 July 1812 subordinate to Major A. Geils.

(b) On 3 December 1825, Lt-General Sir Ralph Darling displayed in Hobart two commissions, one as Governor of N.S.W. and one as Governor of Van Diemen's Land. This was the device for separating Van Diemen's Land from N.S.W. Colonel George Arthur was sworn in again as Lieutenant-Governor on 6 December 1825.

The Cabinet and Executive Government

General

In Tasmania, as in the other States and the Commonwealth, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as 'Cabinet', or 'responsible' government. Its essence is that the head of the State (in Tasmania, the Governor representing Her Majesty the Queen) should perform governmental acts on the advice of his Ministers; that he should choose his principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs or understandings, and through institutions that do not form part of the legal structure of the government at all. In law, still, the executive power of the State is exercised by the Governor who is advised by the Executive Council which he himself has appointed and which meets for certain formal purposes. The whole policy of a Ministry is, in practice, determined by the Ministers of the Crown, meeting without the Governor under the chairmanship of the Premier, and this body is known as the Cabinet.

The Cabinet

This body does not form part of the legal mechanism of government and its meetings are private and deliberative. Only the Ministers of the day are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. As Ministers are the leaders of the party commanding a majority in the House of Assembly, the Cabinet substantially controls not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the State. Even in summoning, proroguing or dissolving Parliament, the Governor is usually guided by the advice tendered him by the Cabinet, through the Premier, though legally the discretion is vested in the Governor.

In Tasmania, the present Cabinet consists of the 10 Ministers of the Crown including the Premier, most of whom hold more than one portfolio.

The Executive Council

This body is usually presided over by the Governor, the members thereof holding office during his pleasure. All Ministers of the Crown must be members of the Executive Council. Ministers actually remain members of the Executive Council on leaving office, but are not summoned to its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The Chief Justice and Judges of the Supreme Court are also members of the Executive Council, but they too are not summoned to its meetings for the same reason. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Clerk (who is the permanent head of the Premier's and Chief Secretary's Department). At Executive Council meetings, the decisions of Cabinet are (where necessary) given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved. The quorum required is three, comprising the Governor and at least two Ministers.

The Appointment of Ministers

Legally, Ministers hold office during the pleasure of the Governor. In practice, however, the discretion of the head of State in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns, the Governor's custom is to send for the leader of the party which commands a majority in the lower House, and to commission him, as Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of the Crown and to serve as his colleagues in the Cabinet.

The *Constitution Act 1854* defined the Parliament of Tasmania as 'the Governor and the Legislative Council and House of Assembly together'. Although no legal requirements enforce it, the selection of all Ministers of the Crown from Parliament stems from the British tradition and sharply contrasts with the American system which requires its Ministers not to be members of Congress.

Ministry

After the elections held on 22 April 1972, the Ministry led by the Hon. E. E. Reece, was announced as follows:

Ministry at 3 May 1972

Name	House	Responsibility (a)
The Hon. E. E. Reece	Assembly	Premier, Treasurer, Mines
The Hon. M. G. Everett, QC	Assembly	Deputy-Premier, Attorney-General, Environment, Racing and Gaming
The Hon. W. A. Neilson	Assembly	Education
The Hon. N. L. C. Batt	Assembly	Chief Secretary, Transport
The Hon. L. E. A. Costello	Assembly	Agriculture, Fisheries
The Hon. M. T. C. Barnard	Assembly	Land and Works, Local Government
The Hon. A. J. Foster	Assembly	Health, Social Welfare, Road Safety
The Hon. R. F. Fagan	Assembly	Industrial Development, Forests, Hydro-Electric Commission
The Hon. D. A. Lowe	Assembly	Housing
The Hon. B. K. Miller	Legislative Council	Tourism, Police, Licensing

(a) See section 'The Present System of Government' later in Chapter for fuller statement of responsibility.

Premiers

The following is a list of the Premiers of Tasmania from 1856 (the year in which the first elected Parliament sat):

Premiers from 1856

Name of Premier	Term of Office		Duration of Office (Months)
	From	To	
1856-1900			
W. T. N. Champ	1.11.56	26. 2.57	4
T. G. Gregson	26. 2.57	25. 4.57	2
W. P. Weston	25. 4.57	12. 5.57	1
F. Smith	12. 5.57	1.11.60	42
W. P. Weston	1.11.60	2. 8.61	9
T. D. Chapman	2. 8.61	20. 1.63	18
J. Whyte	20. 1.63	24.11.66	46
Sir Richard Dry	24.11.66	4. 8.69	32
J. M. Wilson	4. 8.69	4.11.72	39
F. M. Innes	4.11.72	4. 8.73	9
A. Kennerley	4. 8.73	20. 7.76	36
T. Reibey	20. 7.76	9. 8.77	13
P. O. Fysh	9. 8.77	5. 3.78	7
W. R. Giblin	5. 3.78	20.12.78	9
W. L. Crowther	20.12.78	30.10.79	10
W. R. Giblin	30.10.79	15. 8.84	58
Adye Douglas	15. 8.84	8. 3.86	19
J. W. Agnew	8. 3.86	29. 3.87	13
P. O. Fysh	29. 3.87	17. 8.92	65
H. Dobson	17. 8.92	14. 4.94	20
Sir Edward Braddon	14. 4.94	12.10.99	66

Premiers from 1856—*continued*

Name of Premier	Term of Office		Duration of Office (Months)
	From	To	
1900-			
Sir N. E. Lewis	12.10.99	9. 4.03	42
W. B. Propsting	9. 4.03	11. 7.04	15
J. W. Evans	11. 7.04	19. 6.09	59
Sir N. E. Lewis	19. 6.09	20.10.09	4
J. Earle (a)	20.10.09	27.10.09	..
Sir N. E. Lewis	27.10.09	14. 6.12	32
A. E. Solomon	14. 6.12	6. 4.14	22
J. Earle (a)	6. 4.14	15. 4.16	24
Sir Walter Lee	15. 4.16	12. 8.22	76
J. B. Hayes	12. 8.22	14. 8.23	12
Sir Walter Lee	14. 8.23	25.10.23	2
J. A. Lyons (a)	25.10.23	15. 6.28	56
J. C. McPhee	15. 6.28	15. 3.34	69
Sir Walter Lee	15. 3.34	22. 6.34	3
A. G. Ogilvie (a)	22. 6.34	10. 6.39	60
E. Dwyer Gray	11. 6.39	18.12.39	6
R. Cosgrove	18.12.39	18.12.47	96
E. Brooker	18.12.47	25. 2.48	2
R. Cosgrove	25. 2.48	26. 8.58	126
E. E. Reece	26. 8.58	26. 5.69	129
W. A. Bethune	26. 5.69	3. 5.72	35
E. E. Reece	3. 5.72		

(a) Tasmania had an unbroken succession of Labor Premiers, starting with the Ogilvie Ministry (1934), until the resignation of the Reece government (following electoral defeat) on 26 May 1969; earlier Labor Ministries were led by J. Earle (first in 1909) and by J. A. Lyons.

Relations of Two Houses

Status of Legislative Council

A vexed question for many years was the exact status of the Legislative Council in relation to the House of Assembly from which the Ministry of the day was predominantly chosen. The 1854 Constitution Act had defined Parliament as 'the Governor and the Legislative Council and House of Assembly together' and obviously the approval of all three was necessary for laws to become valid; on the other hand, there was no adequate provision for resolving situations in which the Legislative Council rejected bills or amended bills in ways unacceptable to the House of Assembly. The lower house was elected on a wider franchise, and could legitimately claim to be the more accurate instrument of public opinion to the extent that it was not a perpetual body like the Legislative Council, as its members were all elected at the one time. (Only in 1968 was legislation passed to introduce adult franchise for Legislative Council elections.) The power of the Legislative Council to reject and amend was most resented in relation to money bills, since these vitally affected the administration of public affairs by the Ministry of the day.

The Conflict of 1924 and 1925

The 1924-25 Appropriation Bill was amended by the Legislative Council, involving a reduction of \$37,000. The Premier (J. A. Lyons) decided to challenge the right of the upper house to amend money bills; after a two-house conference had failed to reach agreement, the House of Assembly voted 17 to 10, directing the Speaker to seek Royal Assent for the bill 'in the form it passed the House of Assembly'.

The Administrator gave assent to the bill following consultation with the Secretary of State in London and Tasmanian Crown law officials and it went on to the statute book.

By 1925, a new Governor (Sir James O'Grady) had taken up office but he followed the precedent set by the Administrator, giving assent to 'one-house' bills.

A joint committee was established in 1925 to formulate constitutional changes that would resolve the situation and define the relations of the two houses in the passing of money bills. This resulted in the passage of the *Constitutional Amendment Act 1926*.

The following current principles are found in the Act: (i) the Legislative Council retains the right to reject any bill, including a money bill; (ii) the Council is specifically prevented from amending bills to raise revenue for the ordinary annual services of the Government and bills imposing land and income tax; (iii) it can suggest to the House of Assembly that amendments be made but the adoption or rejection of such amendments is at the discretion of the Assembly; and (iv) the operation of such bills is restricted to a period of one year. Apart from the above specific exceptions, the Council retains the right to amend money bills, e.g. those dealing with loan funds or probate. The House of Assembly is given the sole right to initiate bills for the raising of revenue and the imposition of taxes. Finally, the powers of the two houses are declared equal in all matters except for these specific exceptions.

Deadlocks

The Legislative Council has the tradition of being a non-party house; in 1973 the composition of the house was 17 independents and two Labor Party representatives. The leader for the Government in the Legislative Council cannot rely upon a vote taken on party lines to ensure the passage of any government bill. It is the ability to command a majority in the House of Assembly which gives a party the right to form the government of the day and which ensures the passage of government legislation through the lower house; no such certainty exists in the passage of bills through the upper house and accordingly the Legislative Council is in a position to exercise considerable influence on the form in which bills are finally passed through both houses.

As from July 1964, the Liberal Party reversed its policy of non-endorsement of candidates for the Legislative Council and will endorse candidates in particular circumstances.

Consultation Machinery

When a position is reached in which one house refuses to accept the amendments or legislation of the other, provision exists under the Standing Orders for joint consultation by the calling of a 'Free Conference' at which each house is represented by 'managers'. (It is usual for each house to be represented by four managers.) The free conference endeavours to find a compromise acceptable to both houses.

Another form of consultation between the two houses is the appointment of a joint select committee which is set terms of reference and which is primarily concerned with fact-finding. The passage of a bill may be temporarily delayed while a joint select committee makes a specific investigation; this machinery provides members with the information necessary to cast an informed vote.

Parties

In the period 1909-1972, the major parties have been the Labor Party and the Liberal Party (which replaced the Nationalist Party in 1948). In the early 1920s, a Country Party appeared with five members in the House of Assembly but soon went out of existence. At the 1964 Assembly elections, a number of Country Party candidates stood but none was successful. In October 1966 K. O. Lyons, one of the House of Assembly members for Braddon, resigned from the Liberal Party and formed the Australian Centre Party, an organisation affiliated with the Australian Country Party. At the 1969 elections the Centre Party had one representative returned to the House of Assembly; however, at the 1972 elections the Party did not field any candidates.

Dissolution of the House of Assembly

The Governor may dissolve the House of Assembly whenever he considers it desirable but he has no power to dissolve the Legislative Council. In effect then, the Legislative Council is a perpetual body except that approximately one-sixth of its seats falls vacant annually. As there is no provision for a double dissolution the Legislative Council, by rejection of a supply bill, can force the House of Assembly to seek a dissolution without itself needing to face the electorate. This last occurred in 1948.

In practice, the Governor considers dissolving the House of Assembly only when requested to do so by his Ministers. In recent years the House of Assembly has been dissolved three times; in 1950, 1956 and again in 1972.

Sessions of Parliament

Parliament is required to sit every year and, having risen, must sit again before 12 months have elapsed. When the House of Assembly is dissolved and a general election held, the Governor is required to call Parliament together within 90 days of the dissolution, subject to a discretionary extension of a further 30 days.

Elections for the House of Assembly

Tasmanian System

Elections for the House of Assembly are conducted under a system which can be classified as proportional representation by the single transferable vote.

The essential features of the system are as follows:

- (i) For an elector to cast a valid vote, he must express at least three preferences.
- (ii) Names on the voting papers are arranged in distinct groups to facilitate recognition of allegiance to parties (but names of parties are not specified).
- (iii) To secure election, candidates must secure a quota in accordance with the Droop formula (i.e. the total first-preference votes in the constituency divided by eight, plus one vote).
- (iv) Should a candidate secure an exact quota on first preferences, his voting papers are set aside as finally dealt with.
- (v) If the first successful candidate secures a surplus above the quota, then all his voting papers are re-examined to determine which candidates should secure the second preferences.
- (vi) The second preferences are first adjusted by multiplying them by a fraction called the transfer value. The transfer value is calculated by dividing the successful candidate's surplus first-preference votes by his total first preferences. The second-preference votes, adjusted in this way, are now transferred to other candidates.
- (vii) When repetition of the above process results in a position where no further candidates can reach a quota, the candidate who is lowest on the poll is excluded and the preferences shown on his voting papers transferred to the remaining candidates.

The above processes are repeated until seven candidates have been elected. As might be expected, the counting of votes, calculation of transfer values and the transferring of votes are time-consuming operations and a week may elapse before the declaration of a poll.

Commencement of the System

In 1907, an Electoral Act provided that all members of the House of Assembly were to be elected by proportional representation, the State being divided into five constituencies each of which was to be represented by six members. The first election in accordance with this Act was held in 1909.

The fourth schedule to the 1907 Act dealing with quotas, transfer of votes, exclusion of candidates, etc. is still the blue-print for counting votes today; however, as from the 1959 elections, the number of members for each constituency was increased from six to seven, a measure designed to avoid Parliamentary deadlocks.

Advantages

The major advantage claimed for the system is that the composition of the House of Assembly tends to faithfully reflect the wishes of the electors viewed on a State basis, and that a party with a minority of first preferences is most unlikely to obtain a majority of seats, as sometimes occurs in systems with single-member constituencies. By way of example, South Australia, using single-member electorates has sometimes been governed by parties receiving a minority of votes but a majority of seats; other Australian States have had similar experience.

Leaving aside the matter of independents and minority parties, and assuming that only candidates from the two major parties are elected, then the present normal pattern is for each constituency to elect four candidates from one of the major parties and three from the other. It follows, therefore, that the opposition is normally always adequately represented in the House of Assembly and supporters of the opposition party always have representatives for their constituency.

Effectiveness of System

Since voting for the House of Assembly requires a voter to make at least three choices in order of preference, any complete investigation of the effectiveness of the system requires a study of all preference votes. However, an approximate measure of effectiveness can be obtained by treating the State as a single electorate and finding the total first-preference votes obtained by each party; from these totals it is possible to calculate, by simple proportion, the theoretical share of seats to which each party is entitled. In the table that follows, this measure of effectiveness has been calculated for all House of Assembly elections in the period 1931-1972 inclusive. It will be seen that although the relationship between seats actually won and the calculated proportionate share is fairly close in most elections for the major parties, a change in the number of members elected for each electorate after the 1959 election has partially unbalanced this relationship. At the 1972 elections, the contending parties were Labor Party and Liberal Party, while a number of candidates stood as independents, and in addition a number of persons without party affiliations stood as the United Tasmania Group on a conservation platform.

Representation of Parties for the Whole State, 1931-1972

House of Assembly

Election Year	Labor		Liberal (from 1948) or Nationalist		Other (a)	
	Proportionate Share (b)	Seats Won	Proportionate Share (b)	Seats Won	Proportionate Share (b)	Seats Won
1931	10.47	10	16.92	19	2.61	1
1934	13.74	14	14.01	13	2.25	3
1937	17.61	18	11.64	12	0.75	..
1941	18.78	20	10.98	10	0.24	..
1946	15.29	16	10.27	12	4.44	2
1948	14.82	15	11.35	12	3.83	3
1950	14.59	15	14.27	14	1.14	1
1955	15.79	15	13.60	15	0.61	..
1956	15.08	15	13.08	15	1.84	..
1959 (c)	15.58	17	14.37	16	5.05	2
1964	17.97	19	13.47	16	3.56	..
1969	15.91	17	14.68	17	4.41	1
1972	19.22	21	13.43	14	2.35	..

(a) Independents and minority parties.

(b) State treated as single electorate and proportionate share of seats calculated on basis of first preference votes cast for parties.

(c) 35 members elected as from 1959.

Use of the System

Many regard the system of election for the House of Assembly as being a phenomenon peculiar to Tasmania. This is by no means so, since the following countries either use or have used a similar system of election: Republic of Ireland (both Houses), South Africa (Senate), Malta (both Houses), Gibraltar (Legislative Council), Canada (for some provincial electorates in Alberta and Manitoba) and Australia itself, in the election of the Federal Senate. If the State has any claim to being unique in the field of electoral reform, it must be based on the fact that Tasmania was the first country in the world to introduce proportional representation by the single transferable vote.

Votes Recorded at Assembly Elections

The last general election for the House of Assembly was held on 22 April 1972. Voting in general elections for the House of Assembly since 1931 is shown in the following table:

Assembly Elections Since 1931

Year of Election	Electors on Roll	Votes Recorded		Informal Votes	
		Number	As Percentage of Enrolled Electors	Number	Percentage of Total Votes Recorded
1931	118,730	112,779	95.0	3,885	3.4
1934	127,681	120,622	94.5	3,855	3.2
1937	132,001	124,460	94.3	2,997	2.4
1941	139,234	127,034	91.2	6,344	5.0
1946	157,756	143,674	91.1	14,484	10.1
1948	161,088	148,588	92.2	5,886	3.9
1950	161,650	152,785	94.5	6,841	4.5
1955	173,165	162,637	93.9	6,158	3.8
1956	174,632	166,293	95.2	6,968	4.2
1959	180,344	170,559	94.6	9,816	5.8
1964	193,364	184,571	95.5	7,980	4.3
1969	210,268	198,571	94.4	9,248	4.7
1972	216,846	205,803	94.9	7,533	3.7

The percentage of informal votes in the previous table is not particularly high, even though the voting papers for six or seven-member electorates are necessarily more complicated than those for single-member electorates. In Senate elections held in Tasmania, informal votes tend to be rather a large proportion of votes cast and, in the 1934 election, exceeded 16 per cent. In Assembly elections, only three preferences are compulsory whereas in Senate elections, the voter must indicate as many preferences as there are candidates.

Resolution of Assembly Deadlocks*House of 30 Members*

One of the virtues claimed for the Hare-Clark system is the adequate representation given to minorities. In a small House of 30 members, this virtue tended to be too evident and led to situations where the government of the day did not have the necessary majority to carry all its legislation with confidence.

The first remedy employed was the *Constitution Amendment Act 1954* which provided that, in the event of a 15-all draw between the two major parties in an election, an Electoral Commission would be established. This body's function would be to decide, on the basis of primary votes cast for each party, which were the majority and minority parties. On the meeting of the House, the minority party would then have the right to nominate one of its members to the office of Speaker. If the minority party refused to exercise this right, then the majority party might proceed to appoint one of its own members and it would receive an additional member in replacement, elected from the Speaker's constituency.

The 1954 Act provided machinery for overcoming deadlocks but still did not have much impact on the major problem—that of providing the government of the day with an effective working majority.

House of 35 Members

In 1958, a further constitutional amendment was made in which the number of members to be elected for each constituency was increased from six to seven, thus enlarging the House of Assembly from 30 to 35 members. At the first elections held under the provisions of this amendment (May 1959), the major parties secured 17 and 16 seats respectively, the remaining seats being won by independents.

Life of House of Assembly

After the *Constitution Act* 1936, the House was elected for five-year terms. The 1954 Act provided that the term should be reduced to three years if the special deadlock provisions were invoked to appoint a Speaker, but the 1958 Act restored five-year terms irrespective of the outcome of the election. In 1969, the life of the House was reduced to three years by the newly-elected Bethune Government.

When Labor was returned to office in April 1972 the Premier, Mr Reece, introduced legislation to restore a five-year term for the House of Assembly. The Bill was passed by the House in June 1972. However, a number of members of the Legislative Council had voiced strong objections to restoration of a five-year term for the House of Assembly. A conference between the Premier and Council members failed to resolve the issue. The term of office for the House of Assembly was amended from five to four years by the Council and the Bill returned to the Lower House for ratification of the amendment. Following the rejection of the amended Bill by the House of Assembly a conference of managers from the two houses was called. After lengthy debate a compromise solution, which proved acceptable to both Houses, was reached. The compromise agreed to was: (i) term for the present House of Assembly, five years; (ii) House of Assembly terms following completion of the present term, four years; and (iii) no future alterations to House of Assembly terms unless two-thirds of the House's members agree to the change.

Constituencies of House of Assembly

The five constituencies for the House of Assembly are identical with the five electoral divisions electing members to the Federal House of Representatives. The periodic alteration of electoral boundaries to accord with changes in population is carried out under a joint Commonwealth-State agreement, the most recent redistribution becoming effective in November 1968. The next table and map show composition and extent of each electorate.

Enrolments by Electorate (a)

Electorate	Enrolments				
	Old Boundaries 31 May 1968	New Boundaries			
		31 May 1968 (b)	30 June		
			1970	1971 r	1972
Bass	40,139	40,139	40,885	41,208	41,486
Braddon	41,803	41,803	44,259	45,121	46,541
Denison	35,353	42,917	r 45,545	44,451	45,374
Franklin	49,026	37,203	40,040	41,406	42,119
Wilmot	37,103	41,362	r 42,644	42,969	43,360
Total	203,424	203,424	r 213,373	215,155	218,880

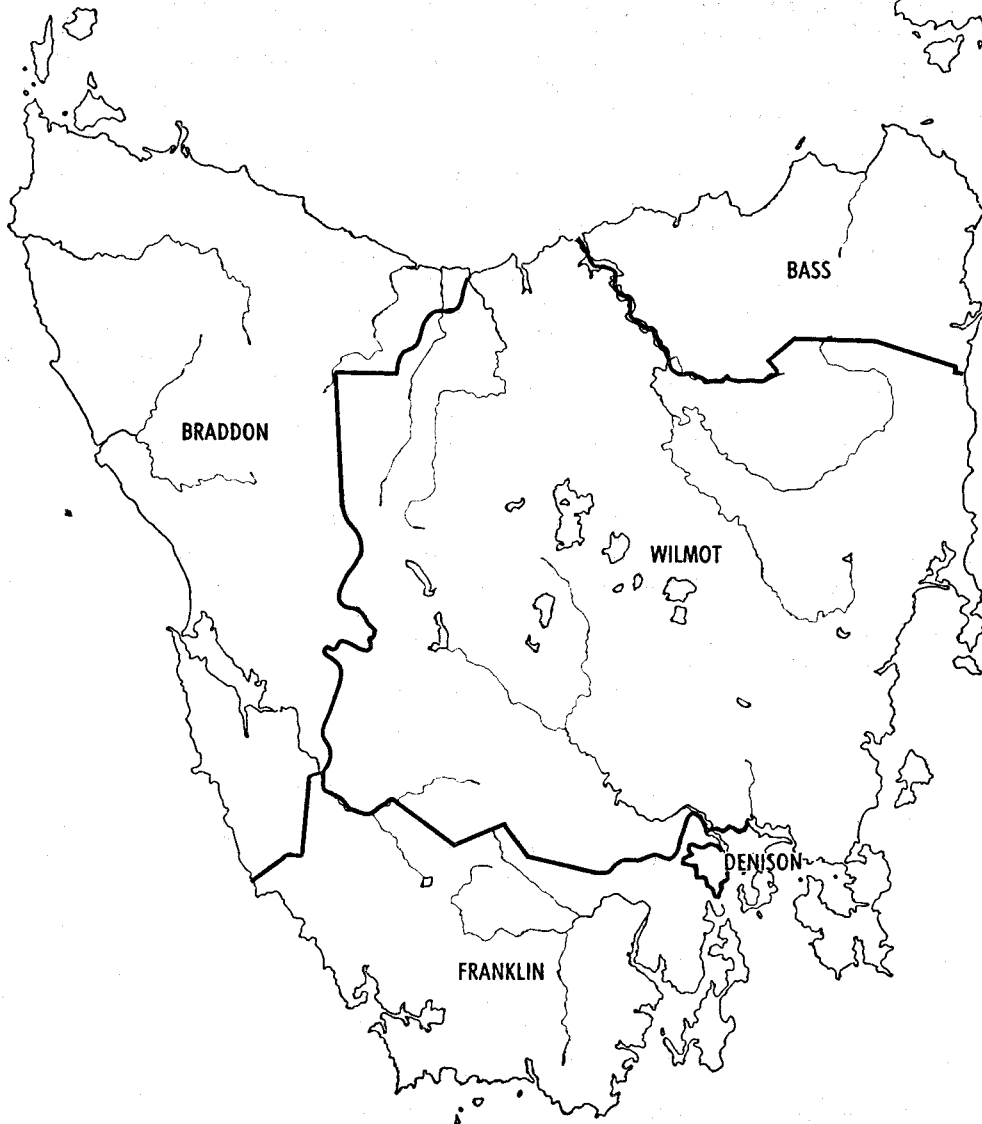
(a) Electoral boundaries changed for the divisions of Denison, Wilmot and Franklin.

(b) Although boundary changes did not become effective until 25 November 1968 the enrolment figures at 31 May 1968 show the immediate effect of the changes.

ELECTORAL DIVISIONS

STATE.....House of Assembly

FEDERAL...House of Representatives



Elections for the Legislative Council

Annual Fractional Elections

For the purpose of electing members of the Legislative Council, the State is divided into 19 single-member constituencies. Each member, when elected, holds office for six years and Council elections are held every year to elect three members; every sixth year four members are elected. There are no general elections for the Legislative Council.

Preferential Voting

Candidates appear on the voting paper in alphabetical order and are not grouped to show party allegiance as in voting papers for the House of Assembly. If there are two candidates, the voter need only vote for one. If there are three or more candidates, the voter must indicate at least three preferences to record a valid vote.

If any candidate secures first-preference votes exceeding half the total first preferences, he is declared elected. If no candidate satisfies this condition, then the candidate with the fewest votes is excluded and the second preferences shown on his voting papers are transferred to other candidates, the transfer value of each such second preference being equal to one. If no candidate then has the required majority, the process of exclusion is repeated until such time as one candidate secures the majority.

The method of counting is identical with that used in elections for the Federal House of Representatives and is termed preferential. The full description is election by absolute majority through use of the alternative vote.

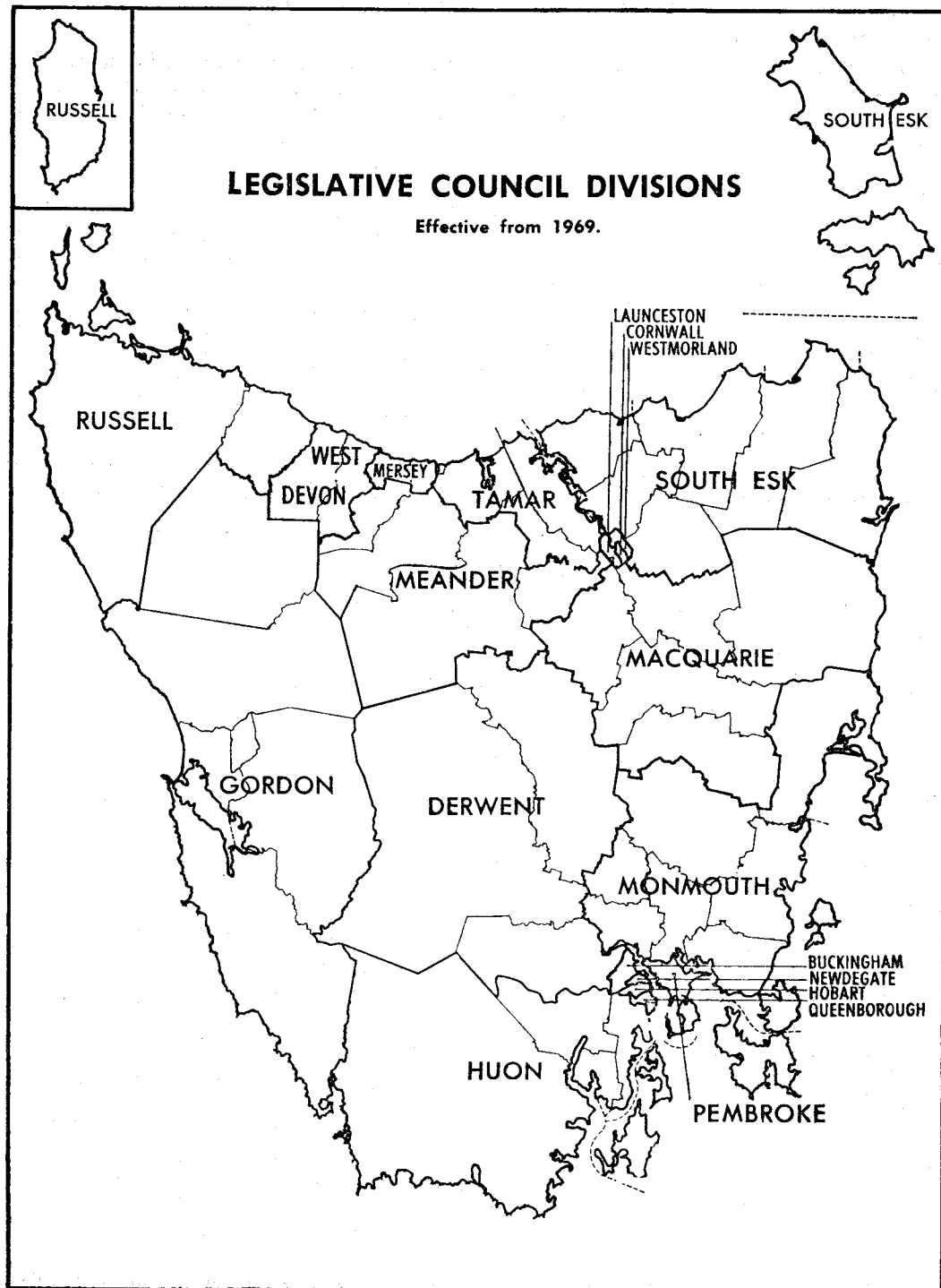
Boundaries, Legislative Council Divisions

Late in 1967, the *Constitution Act* 1934 was amended to change the boundaries of the Legislative Council divisions, the new boundaries being used for the first time in 1969. The following table shows the number of electors in each division before and after redistribution:

Legislative Council: Effect of Changed Boundaries on Number of Electors in Each Division

Division (a)		Before Redistribution	After Redistribution			
			30 Sept. 1968	30 June		
				1970 (b)	1971	1972
Buckingham	(H)	11,450	10,227	10,186	10,956	10,806
Cornwall	(L)	6,556	9,499	9,837	10,171	12,231
Derwent	(R)	13,370	6,078	6,814	6,775	6,947
Gordon	(S)	4,039	3,731	5,505	5,313	5,526
Hobart	(H)	4,565	10,091	13,104	13,312	13,146
Huon	(R)	9,141	7,776	7,675	7,973	9,821
Launceston	(L)	2,826	8,998	11,462	11,350	11,237
Macquarie	(R)	7,107	5,819	5,730	5,796	5,804
Meander	(R)	5,639	7,151	7,854	8,143	7,901
Mersey	(DU)	11,023	11,037	11,850	13,537	15,047
Monmouth	(R)	3,491	6,313	6,764	6,808	6,968
Newdegate	(H)	7,867	11,822	12,135	12,228	12,534
Pembroke	(H)	17,214	13,347	15,720	18,634	18,926
Queenborough	(H)	7,824	9,495	10,565	11,595	11,265
Russell	(R)	8,189	8,268	9,212	9,238	9,420
South Esk	(R)	9,517	7,263	8,497	8,557	8,512
Tamar	(R)	8,183	6,182	6,494	6,563	6,822
West Devon	(BP)	9,249	9,438	11,229	12,610	13,013
Westmorland	(L)	13,270	8,290	9,385	9,420	9,736
Total	.. .. .	160,520	160,825	180,018	188,979	195,662

(a) (H) = Hobart and suburban; (L) = Launceston and suburban; (BP) = Burnie and Penguin municipalities; (DU) = Parts of Devonport and Ulverstone municipalities; (R) = rural; (S) = special.
 (b) Franchise widened 1 July 1969; figures not directly comparable.



The redistribution differentiated between the faster growing populations in urban electorates and the stationary or contracting populations in rural seats. Special provision was made for the isolated west coast seat of Gordon.

Although universal franchise replaced the former restricted franchise on 1 July 1969, the Electoral Department is progressively updating the roll, concentrating on the three or four electorates to be contested each year.

Qualifications of Electors and Members

Qualifications of Electors, State Elections

An elector for both the House of Assembly and the Legislative Council is any person, aged at least 18 years, male or female, who has lived in the State six months continuously, who is a natural-born or naturalised subject of the Queen and whose name is on the electoral roll for an electoral division. (Legislation reducing the voting age to 18 years passed both Houses of Parliament in mid-1973.) Voting has been compulsory since the *Electoral Act* 1928. The special qualifications for electors of the Legislative Council were abolished on 1 July 1969 following amendments to the *Constitution Act* 1934 and the *Electoral Act* 1907.

Qualifications of Members, State Parliament

House of Assembly: To be eligible for election as a member of the House of Assembly, a candidate must comply with the following conditions:

He must either be an elector or be qualified to be an elector for the House of Assembly and resident in Tasmania for five years at any one time or resident for two years immediately preceding the election.

Legislative Council: A candidate for the Legislative Council must be an elector or have the qualifications of an elector for the Council; in addition he must meet the residential restrictions imposed on candidates for the House of Assembly.

Persons of unsound mind or in prison under any conviction are barred from voting at elections for either House or from being elected to either House. No person shall be a member of both Houses at the one time.

By-Elections

House of Assembly

In the case of a vacancy occurring in the House of Assembly, there is provision for the Chief Electoral Officer to publicly invite nominations from candidates who were unsuccessful at the last general election in the constituency which elected the vacating member. If one nomination only is received, then the Chief Electoral Officer declares the consenting candidate elected and notifies the Governor to this effect.

If more than one such nomination is received, the Chief Electoral Officer is required to examine the voting papers counted for the vacating member at the last general election. In the simple case—where the vacating member obtained a surplus above the quota—this can be confined to voting papers expressing first choices. In the more difficult case—where the vacating member did not obtain a quota on first choices—it is necessary to take into account not only original first-choice papers but also all voting papers representing votes transferred to the vacating member.

The vacating member's voting papers, as defined above, are examined and all his votes are transferred to the consenting candidates according to the preferences expressed thereon. Second preferences derived from first choice votes of the vacating member have a transfer value of one, but from votes he obtained by transfer, only the value at which he obtained them. For the purpose of the count, first-choice votes received by the consenting candidates at the general election are not relevant—the selection is based on preferences as revealed by the voting papers of the vacating member.

When the number of votes in favour of each consenting candidate has been ascertained, the final selection is by the method of the absolute majority through the alternative vote.

If no nominations are received from candidates unsuccessful at the last general election, then an election is held to fill the vacancy.

Legislative Council

In the case of a vacancy occurring in the Legislative Council, a writ is issued directing that an election be held to fill the vacancy. There is no provision for a re-count of voting papers of the vacating member as in by-elections for the House of Assembly.

Members of Parliament

Legislative Council

The following shows members of the Legislative Council, the electoral division which they represent and the year in which each will retire from the Council:

Members of the Legislative Council

Electoral Division					Member's Name	Year of Retirement
Buckingham	..	..	..	..	Lowrie, The Hon. Kenneth Francis	1974
Cornwall	..	..	..	..	King, The Hon. Frank Barnard	1978
Derwent	..	..	..	..	Dixon, The Hon. Joseph Henry (a)	1979
Gordon	..	..	..	..	Broadby, The Hon. Albert James	1976
Hobart	..	..	..	..	Benjamin, The Hon. Phyllis Jean, MBE (b)	1976
Huon	..	..	..	..	Hodgman, The Hon. William Michael	1978
Launceston	..	..	..	..	Shipp, The Hon. Raymond William	1976
Macquarie	..	..	..	..	Shaw, The Hon. George Arthur	1974
Meander	..	..	..	..	Coates, The Hon. Jeffrey Allan	1977
Mersey	..	..	..	..	Braid, The Hon. Henry William	1978
Monmouth	..	..	..	..	Bisdee, The Hon. Louis Fenn	1975
Newdegate	..	..	..	..	Miller, The Hon. Brian Kirkwall (b) (c)	1975
Pembroke	..	..	..	..	McKay, The Hon. Eric Charles	1977
Queenborough	..	..	..	..	Hodgman, The Hon. William Clark	1977
Russell	..	..	..	..	Fenton, The Hon. Charles Balfour Marcus (d)	1975
South Esk	..	..	..	..	Carins, The Hon. Lloyd Horton, O.B.E.	1974
Tamar	..	..	..	..	Hitchcock, The Hon. Daniel	1979
West Devon	..	..	..	..	Young, The Hon. William Thompson	1977
Westmorland	..	..	..	..	Gregory, The Hon. Oliver Harold	1979

(a) Chairman of Committees.

(b) Endorsed by the Australian Labor Party; other members are independents.

(c) Leader for the Government in the Legislative Council; Minister for Tourism.

(d) President.

House of Assembly

The following shows members of the House of Assembly elected on 22 April 1972 and their party allegiance:

Members of the House of Assembly (from 22 April 1972)

Electoral Division	Member's Name	Party Affiliation
Bass	Barnard, The Hon. Michael Thomas Claude Beattie, Eric William Bushby, Maxwell Holmes Farquhar, Hedley David Foster, The Hon. Allan John Le Fevre, Vernon Mackenzie Pitt, Neil Henry	A.L.P. Liberal Liberal A.L.P. A.L.P. A.L.P. Liberal
Braddon	Barker, Wilfrid George Bonney, Raymond Claude Chisholm, Geoffrey Donald (a) Costello, The Hon. Lloyd Edwin Albert Davies, Ronald Glen Reece, The Hon. Eric Elliott (b) Ward, Sydney Victor	Liberal Liberal A.L.P. A.L.P. A.L.P. A.L.P. A.L.P.
Denison	Austin, Kenneth Ernest Baker, Robert Wilfred Batt, The Hon. Neil Leonard Charles Bingham, The Hon. Eardley Max (c) Corby, Kevin Patrick Everett, The Hon. Mervyn George, QC (d) Mather, Robert	A.L.P. Liberal A.L.P. Liberal A.L.P. A.L.P. Liberal
Franklin	Barnard, The Hon. Eric Walter (e) Beattie, John Maxwell Clark, Douglas Frank Frost, Stewart Charles Hilton Lowe, The Hon. Douglas Ackley Neilson, The Hon. William Arthur Pearsall, Geoffrey Allan	A.L.P. Liberal Liberal A.L.P. A.L.P. A.L.P. Liberal
Wilmot	Baldock, Darrel John Bessell, Leonard Hubert Bethune, Walter Angus Fagan, The Hon. Roy Frederick Ingamells, Christopher Robert Lohrey, Andrew Barnard Polley, Michael Robert	A.L.P. Liberal Liberal A.L.P. Liberal A.L.P. A.L.P.

(a) Chairman of Committees.

(b) Premier.

(c) Leader of the Opposition.

(d) Deputy Premier.

(e) Speaker.

House of Assembly Elections, 22 April 1972

The Election on 22 April 1972 resulted in a clear-cut victory for the Labor Party which was returned to power with a seven-seat majority, the largest obtained by a Tasmanian Government since 1941 when Labor held 20 seats in the 30-member House of Assembly.

Salaries of Members of Parliament

Parliamentary Salaries Tribunal

From 1962, until abolished by legislation in 1973, Parliamentary salaries and allowances were determined by an independent Parliamentary Salaries Tribunal. Salary and allowance reviews were on a triennial basis and the next table gives details of salaries as determined by the Parliamentary Salaries Tribunal in its decisions:

Determinations of the Parliamentary Salaries Tribunal, 1964, 1967 and 1970
(\\$)

Particulars	Rate Per Annum from 1 October		
	1964	1967	1970
BASIC SALARY OF MEMBERS			
Member, Legislative Council	4,600	6,000	7,200
Member, House of Assembly	4,600	6,000	7,200
SPECIAL RATES (GROSS) (a)			
Cabinet—			
Premier (b)	10,000	13,300	16,000
Deputy Premier	8,200	11,300	13,400
'Senior' Ministers	7,600	10,200	12,200
'Junior' Ministers	7,600		
Legislative Council—			
President	6,200	8,060	9,600
Chairman of Committees	5,400	7,300	8,600
Leader for the Government	7,000	9,100	10,300
Deputy Leader	5,250	6,800	8,000
House of Assembly—			
Speaker	6,200	8,060	9,600
Leader of the Opposition	(c) 7,400	(c) 9,950	(d) 11,700
Deputy Leader	5,400	7,020	8,400
Chairman of Committees	5,400	7,300	8,600

(a) All rates included the basic salary received by the office-holder as a member.

(b) Excluded entertainment allowance of \$700 (1964) and \$900 (1967 and 1970).

(c) Excluded travelling allowance of \$500 (1964); and \$650 (1967).

(d) In addition travelling allowance, on the same basis as for Ministers, was payable.

Parliamentary Salaries and Allowances Act 1973

This Act abolished the Parliamentary Salaries Tribunal and established the principle of annual review to establish a basic rate of pay to members. The basic rate was set at \$7,200 or the 'interstate average' of the rates payable to ordinary 'back-bench' members of the Legislative Assemblies of New South Wales, Victoria, Queensland and Western Australia and the House of Assembly of South Australia. Of the two rates (i.e. \$7,200 or the interstate average) the greater rate is chosen as the basic salary. Calculation of the interstate average is the responsibility of the 'salaries committee' comprising the Government Statistician, Clerk of the Legislative Council and Clerk of the House of Assembly. The committee is required to meet as soon as practical after 15 June each year (except for 1973) and make the necessary calculation. A report on the method adopted to make the calculation and the interstate-average is then forwarded to the Auditor-General who may accept the calculation or himself make a calculation replacing that of the salaries committee. Having either accepted the salaries committee's calculation or substituted one of his own, the Auditor-General is required to publish in the Government *Gazette* the appropriate interstate average which then becomes the basic salary for payment of Parliamentary salaries and allowances.

Additional amounts, as shown in the next table, are payable to the Premier, Deputy Premier, Ministers of the Crown, Leader of the Opposition and other officers of Parliament. The extra salaries payable are all related to the basic salary.

Special Rates Payable in Addition to the Basic Salary (a)
(Per Cent)

Particulars	Additional Salary Payable as Proportion of Basic Salary (b)	Particulars	Additional Salary Payable as Proportion of Basic Salary (b)
Cabinet—		House of Assembly—	
Premier	125	Speaker	33½
Deputy Premier	85	Chairman of Committees	20
Ministerial Office	70	Leader of the Opposition	70
Legislative Council—		Deputy Leader of the Opposition	17
President	33½	Government Whip	6
Leader for the Government	70	Opposition Whip	6
Chairman of Committees	20		
Deputy Leader for the Government	11		

(a) The basic salary was set at \$10,217 in 1973.

(b) Salary in excess of basic rate (i.e. the Premier receives basic rate + 1.25 × basic rate).

Allowances Payable to Members: Electoral allowances, and entertainment allowances are calculated as a proportion of the base rate. Travel allowances are related to rates payable to permanent heads of State Government Departments. The next table shows the electoral allowances payable as a proportion of the basic salary:

Electoral Allowances Payable as a Proportion of the Basic Salary (a)
(Per Cent)

Electoral Division	Proportion of Basic Salary Payable	Electoral Division	Proportion of Basic Salary Payable
Legislative Council—		Legislative Council— <i>continued</i>	
Buckingham	13	Queenborough	11
Cornwall	12	Russell	26
Derwent	18½	South Esk	26
Gordon	26	Tamar	18½
Hobart	11	West Devon	17
Huon	18½	Westmorland	14
Launceston	12	House of Assembly—	
Macquarie	20	Bass	26
Meander	22	Braddon	30
Mersey	17	Denison	15
Monmouth	24	Franklin	21
Newdegate	11	Wilmot	35
Pembroke	13		

(a) The basic salary was set at \$10,217 in 1973.

The Present System of Government

The system of responsible government in Tasmania requires that the executive power of the State shall be exercised by the Cabinet; in exercising this power, the Ministers of the Cabinet are held responsible for the actions and administration of government departments and other governmental authorities which have been created for three basic purposes: (i) to put into practice the laws made by the Parliament; (ii) to give effect to the decisions of the Ministry; and (iii) to advise the Ministry on matters of policy.

The next section lists the departments and authorities currently under the various Ministers but the allocation of responsibility is subject to change and Cabinet has the power to vary it at any time. A detailed account of the work of the various departments and authorities appeared in the first two issues of the Year Book series.

Premier, Treasurer and Minister for Mines

Premier's and Chief Secretary's Dept
Mines Dept
Treasury Dept

Government House
Agent-General's Office

Deputy-Premier, Attorney-General, Minister for the Environment and Racing and Gaming

Attorney-General's Dept
Solicitor-General's Dept
Supreme Court and Sheriff's Dept
Magisterial and Court of Requests Dept
Parliamentary Counsel's Dept

Public Trust Office
Registrar-General's Dept
Prisons Dept
Racing Commission
Environmental Control

Minister for Education

Education Dept

Minister for Lands and Works and Local Government

Dept of Public Works
Dept of Lands
Rivers and Water Supply Commission
Metropolitan Water Board

Dept of Film Production
Town and Country Planning Commission
Local Government Office

Chief Secretary and Minister for Transport

Premier's and Chief Secretary's Dept
Audit Dept
Public Service Commissioner's Dept
Electoral Dept
Dept of Labour and Industry
Public Service Tribunal Dept
Tasmanian Grain Elevators Board

State Library
Fire Brigades Commission
Rural Fires Board
Miners Pension Board
Transport Commission
Metropolitan Transport Trust

Minister for Agriculture and Fisheries

Dept of Agriculture
Inland Fisheries Commission
Sea Fisheries Division

Agricultural Bank of Tasmania (Land Settlement Function)
National Parks and Wildlife Service

Minister for Health, Social Welfare and Road Safety

Dept of Health Services
Mental Health Services Commission

Social Welfare Dept
Road Safety

Minister for Industrial Development, Forests and Minister in Charge of the Hydro-Electric Commission

Directorate of Industrial Development
Forestry Commission
Supply and Tender Department

Government Printing Office
Hydro-Electric Commission
Government Insurance Office

Minister for Housing

Housing Dept

Minister for Tourism, Police and Licensing

Dept of Tourism and Immigration
Police Dept

Licensing Court

ACTS OF STATE PARLIAMENT

Summary of Recent Acts

The examples below illustrate the interpretation of the notations used in the following list of Acts:

(A 1952)—An Act to amend an Act of the same title passed in 1952.

(A Audit Act 1952)—An Act to amend an Act of this title passed in 1952.

(R 1952)—An Act to repeal an Act of the same title passed in 1952.

(R Audit Act 1952)—An Act to repeal an Act of this title passed in 1952.

(P 1952)—An Act to be incorporated and to be read as one with the Principal Act passed in 1952.

(P Audit Act 1952)—An Act to be incorporated and to be read as one with the Principal Act of this title passed in 1952.

(RS 1952)—An Act to repeal an Act of the same title passed in 1952 and to substitute new legislation.

(RS Audit Act 1952)—An Act to repeal an Act of this title passed in 1952 and to substitute new legislation.

State Acts, 1971

Number	Short Title and Summary
1	Goods (Trade Descriptions)—prohibit the application of false trade descriptions to goods.
2	Dangerous Drugs (A1959; A Police Offences Act 1935)—prohibition of growing of certain plants and possession and sale of drugs.
3	Hire-Purchase (A1959)—provisions relating to the insurance of goods on hire-purchase.
4	Marginal Dairy Farms Reconstruction—agreement between the Commonwealth and State for a Marginal Dairy Farms Reconstruction Scheme.
5	Explosives (A1916)—delineation of places where explosives may be made and kept.
6	Supreme Court Civil Procedure (A1932)—power of judges to make rules of court.
7	Motor Vehicles Tax (A1917)—alteration to the rate of motor vehicle tax.
8	Public Services (A1923)—amend the salary and allowances of the Commissioner of the Public Service.
9	Audit (A1918)—amend the salary of the Auditor-General.
10	Racing and Gaming Act (A1952)—prohibition of and penalties imposed on: unlawful betting houses, betting with minors, betting in public places. Stamp duty on betting tickets, etc.
11	Closer Settlement (R1957)—Director of Land Settlement.
12	State Advances (A1935; A1962)—advances to farmers and other primary producers. Additional borrowing by the Treasurer for purposes of principal Act.
13	Hydro-Electric Commission (Pieman River Power Development) (P Hydro-Electric Commission Act 1914)—authority for and expenses of construction of works.
14	Waterworks (A1952)—provision for installation of fire-fighting mains in buildings.
15	Metropolitan Transport (A1954)—payment of pensions to workers of the M.T.T.
16	Pensioners (Heating Allowance)—granting of an allowance to certain classes of pensioners.
17	War Service Land Settlement (A1950)—advances to settlers.
18	Milk Board Superannuation Scheme—authorise certain payments by the Milk Board of Tasmania to the Trustee of its superannuation fund.
19	Loan Fund Supply 1971-1972—issue and appropriation of Loan Fund.
20	Circular Head Marine Board Loan (A1950)—amendment of the sum of money to be borrowed.
21	King Island Port Facilities Agreement—approve the construction, maintenance and use of port facilities at Little Grassy Bay, King Island.
22	Public Bodies Assistance (A Local Government Act 1962; A Elderly Citizens' Clubs and Youth Centres Act 1966)—giving financial assistance to municipalities and certain other public bodies to use on activities of value to the community.
23	Defacement of Property (A1898)—miscellaneous amendments.
24	Pulpwood Products Industry (Eastern and Central Tasmania) (A1968)—compensation of Crown Lessees.
25	State Employees (Long-Service Leave) (A1950)—right of employees to elect to retire in certain cases.
26	Electoral (A1907)—miscellaneous amendments.
27	Primary Producers' Relief—financial assistance to orchardists who suffered loss as a result of hail.
28	Appropriation (Cattle Compensation)—compensation for destruction of farmer's cattle.

State Acts, 1971—continued

Number	Short Title and Summary
29	Consolidated Revenue Fund Appropriation (No. 2) 1970-1971—issue and appropriation of funds.
30	Consolidated Revenue Fund Supply 1971-1972—issue and appropriation of funds.
31	Constitution (A1934)—miscellaneous amendments.
32	Marketable Securities (R1967)—provision for instruments of transfer of certain marketable securities.
33	Ambulance (A1959)—amend charges for conveyance.
34	Apple and Pear Crop Insurance (A1967)—miscellaneous amendments.
35	Tasmanian Government Insurance (A1919)—miscellaneous amendments.
36	Advanced Education (A1968)—general functions, diplomas, regulations, etc.
37	Queen Victoria Hospital (A Queen Victoria Maternity Hospital Act 1952)—miscellaneous amendments.
38	King Island Marine Board Loan (P Marine Act 1921)—authorisation to borrow money to meet the construction of certain works.
39	Housing Agreement (P1956)—borrowing and application of money for housing.
40	Loan Fund Supply (No. 2) 1971-1972—issue and appropriation of Loan Fund.
41	Consolidated Revenue Fund Supply (No. 2) 1971-1972—apply a sum for the service of the year ending 30 June 1972.
42	Consolidated Revenue Fund Appropriation 1971-1972—issue and appropriation of funds.
43	Pay Roll Tax—levy of State pay-roll tax upon employers in respect of certain wages.
44	Loan Fund Appropriation 1971-72—issue and appropriation of Loan Fund.
45	Land Tax (A Land and Income Tax 1910)—impose a land tax.
46	Stamp Duties (A1931)—miscellaneous amendments.
47	Hydro-Electric Commission (Contributions) (A Hydro-Electric Commission Act 1944)—requiring the H.E.C. to make contributions in aid of the Consolidated Revenue Fund.
48	Launceston Public Hospitals Board—make temporary provision to the constitution and powers of the Board.
49	Rural Reconstruction—give effect to a scheme for the assistance to persons engaged in rural industries.
50	Traffic (A1925)—miscellaneous amendments.
51	Presbyterian Church of Australia—miscellaneous amendments.
52	Apprentices (A1942)—minor amendments.
53	Police Offences (A1935)—minor amendment.
54	Snowy Mountains Engineering Corporation (Tasmania)—functions and powers of the Corporation in this State.
55	Adult Education (A1948)—miscellaneous amendments.
56	Education (A1932)—miscellaneous amendments.
57	Libraries (A1943)—regulations.
58	Industrial Housing Guarantees—guaranteeing loans to carry out schemes of housing and urban facilities for persons employed in industrial undertakings.
59	Land Valuation—to consolidate and amend the law relating to the valuation of land.
60	Justices (A1959)—appointment of clerks, etc. of petty sessions; miscellaneous amendments.
61	Statutory Salaries—salaries to be paid to holders of certain offices.
62	Mines Inspection (A1968)—employment in mines; miscellaneous amendments.
63	Loan Fund Appropriation (No. 2) 1971-1972—issue and appropriation of Loan Fund.
64	Long-Service Leave (Casual Employment)—provide long-service leave payments for certain classes of casual employment.
65	Alcohol and Drug Dependency (A1968)—treatment centres.
66	Local Government (A1962)—miscellaneous amendments.
67	Port of Hobart Reclamation (A1954)—substitution of an amended schedule.
68	Solicitors Remuneration (A1883)—miscellaneous amendments.
69	Civil Aviation (Carrier's Liability) (P1963)—miscellaneous amendments.
70	St Vincent's Hospital Loan Guarantee—repayment of a sum of money proposed to be lent by the Commonwealth Trading Bank to the Trustees of the Sisters of Charity of Australia.
71	Daylight Saving (A1968)—amendment to the period of daylight saving.
72	Consumers Protection (A1970)—area, exercise and reports of the Council.
73	Farmers Debt Adjustment (A1936)—additional purposes for which money may be obtained.
74	Dangerous Drugs (No. 2) (A1959)—sale of drugs, regulations.
75	Bell Bay Railway Agreement—agreement between the Commonwealth and State in respect of financial assistance towards the cost of the construction of the Bell Bay Railway.
76	Hydro-Electric Commission (Capital Expenditure) (A Hydro-Electric Commission (Mersey-Forth Power Development) Act 1963; A Hydro-Electric Commission (Miena Dam) Act 1964)—miscellaneous amendments.
77	National Parks and Wildlife (A1970)—transference of officers.
78	Public Service Tribunal (No. 2) (A1958)—awards: effects and proceedings.
79	Lending of Money (A1915)—special provision as to certain loans to corporations.
80	Land and Income Taxation (A1910)—miscellaneous amendments.
81	Poisons—establishment of Poisons Advisory Committee, prohibition of importation, making, refining, preparation, sale, supply, use, etc. of certain substances and plants.

State Acts, 1971—continued

Number	Short Title and Summary
82	Probation of Offenders (A1934)—miscellaneous amendments.
83	Marine Search and Rescue—provide for carrying out of certain marine search and rescue operations.
84	Crown Lands (Miscellaneous Provisions)—miscellaneous provisions.
85	Roads and Jetties (A1935)—minor amendment.
86	Hobart Corporation (A1963)—Salamanca Place Market.
87	Consolidated Revenue Fund Supplementary Appropriation 1970-1971—issue and appropriation of funds.
88	Home Builders' Account—provision of finance to assist persons to erect or purchase homes.
89	Radiographers Registration—registration of radiographers and the regulation of the practice of radiography.
90	Films—the classification and registration of films.
91	Public Service Tribunal (A1958)—minor amendment.
92	Police Regulation (A1898; A1963)—miscellaneous amendments.
93	Factories, Shops, and Offices (A1965)—amendments to rostered opening hours for service stations.
94	Traffic (No. 2) (A1925)—miscellaneous amendments.
95	Stock (A1932)—miscellaneous amendments.
96	Pharmacy (A1908)—miscellaneous amendments.
97	Child Welfare (A1960)—public performances involving danger.
98	Urban Farming Land Taxation (A1970)—valuation as urban farming land, partial loss of rebate or refund.
99	Dairy Produce (R1969)—expiry of the Act.
100	State Employees (Long-Service Leave) (A1950)—provisions applicable to employees transferred from other States.
101	Retirement Benefits (A1970)—conversion of certain pensions.
102	Legal Practitioners (A1959)—miscellaneous amendments.
103	Local Government (No. 2) (A1962)—miscellaneous amendments.
104	Straits Islands Shipping Services Subsidies (A1948)—power of Minister to enter into agreements with shipowners to pay subsidies.

State Acts, 1972

Number	Short Title and Summary
1	Loan Fund Appropriation (No. 3) 1971-1972—issue and appropriation of funds.
2	Loan Fund Supply 1972-1973—issue and appropriation of funds.
3	Consolidated Revenue Fund Supply 1972-1973—issue and appropriation of funds.
4	Acts Interpretation (A1931)—references in laws of the State to British subjects.
5	Tasmanian Sanatorium (A1950)—termination of trust for the Tasmanian Chest Hospital.
6	Mental Health Services (A1967)—conditions of service, etc. of officers of the mental health service and various other amendments.
7	Tasmanian Orchestra (Continuation) (A1951)—amend State contributions to the Orchestra.
8	Public Trust Office (A1930)—amendments relating to administration of small estates, the investment board, investment of funds, accounting reports, etc.
9	Statutory Salaries (A1971)—amend salaries for various State officials.
10	Education (A1932)—amendments relating to the Board of Technical Education.
11	Parliamentary Retiring Allowances (A1955)—benefits to members.
12	Soft Fruit Industry Act (A Fruit and Vegetables Act 1953; R Stone and Berry Fruits Board Act 1939)—establishment of a Soft Fruit Industry Board, regulation of soft fruit industry.
13	Weights and Measures (A1934)—miscellaneous amendments relating to weights, units, etc.
14	Crown Lands (Miscellaneous Provisions) (A1970)—miscellaneous provisions.
15	Service Payments (Public Hospitals)—allow service payments to certain employees in public hospitals.
16	R. H. Houffe & Co. Proprietary Limited Loan Guarantee—guarantee loan raisings by R. H. Houffe Co. Pty Ltd.
17	Traffic (No. 2) (A1925)—application of penalties in respect of traffic infringement notices and application of regulations to the Crown.
18	Hydro-Electric Commission (Doubts Removal)—validate Hydro-Electric Commission's powers to continue with Gordon River Power Development Scheme.
19	Consolidated Revenue Fund Appropriation 1972-1973—issue and appropriation of funds.
20	Loan Fund Appropriation 1972-1973—issue and appropriation of funds.
21	Smithton Harbour Trust Dissolution (A Marine Act 1921)—dissolve Smithton Harbour Trust.
22	Cosgrove Park (A1962)—powers of the board.
23	Ambulance (A1959)—constitution of the Ambulance Commission.

State Acts, 1972—continued

Number	Short Title and Summary
24	Superannuation (A1938)—right of Richard Selby Smith to continue to contribute to the State Superannuation Fund.
25	Daylight Saving (A1968)—amend period of daylight saving.
26	Albert Henry Jackson Pension (A1931)—adjustments to annual pension paid to Albert Henry Jackson.
27	Mining Companies (Repeal) (R1884; R Mining Companies (Foreign) Act 1884)—repeal of Mining Companies Act 1884 and provide for continuation of any companies or syndicates incorporated under that Act and to repeal the Mining Companies (Foreign) Act 1884.
28	Cinema (A1962)—objections to registration, duration and renewal of registrations and licences and other amendments.
29	Tobacco Act—levy a tax on consumption of cigarettes, cigars and tobacco, licensing of tobacco retailers, etc.
30	Medical (A1959)—registration of medical practitioners, imperial and Commonwealth qualifications, special licences.
31	North East Land Development—ratification of the agreement to dispose of Crown Land to W. D. & H. O. Wills (Australia) Ltd.
32	Parliamentary Retiring Allowances Act (A1955; R1968)—definition of basic wage and annual adjustment of pensions.
33	Retirement Benefits (A1970)—conversion of certain pensions.
34	Land Tax—rates of land tax for 1972-73.
35	Registration of Deeds (A1935)—attachment of a facsimile signature of the Registrar or Deputy Registrar to documents.
36	Softwood Forestry—State-Commonwealth agreement for financing softwood plantings.
37	Industrial Development (A1954)—powers of the Minister, financial provisions and repeal of obsolete enactments.
38	Adoption of Children (A1968)—miscellaneous amendments.
39	Maintenance (A1967)—powers of the court to make orders on dismissal of complaints, relief in the case of de facto relationships and procedural matters.
40	Real Property (A1862)—deposit of maps certified correct by a registered surveyor.
41	Roads and Jetties (A1935)—application of Commonwealth aid road funds.
42	Cressy-Longford Irrigation Water—make better provision for the supply of water in the Cressy-Longford Irrigation Water District.
43	Companies (Death Duties) (A1969)—non-application of the Act in certain cases.
44	Local Government (A1962)—maximum number of votes by electors at municipal elections.
45	Goods (Trade Descriptions) (A1971)—trade description to be applied to boots and shoes.
46	Department of Mines (Investigations)—powers of investigation to officers of the Department of Mines.
47	Transport (A1938)—appointment of associate Commissioners, constitution of the Commission, suspension and removal of Commissioners.
48	Rural Fires Act (A1967)—special fire areas, fire danger periods, permits to light fires, contributions to the rural boards.
49	Municipality of Clarence (Poll)—hold a poll to decide form of local government for municipality.
50	Stipendiary Magistrates (A1969)—tenure of office, title of stipendiary magistrate, reference in other Acts as police or stipendiary magistrates.
51	Boy Scouts Association (A1954)—incorporation of the State Council of the Association, transfer of property to the corporation.
52	Legal Practitioners (A1959)—admission of barristers, effect of not practising, appropriation of fees, penalties and duty.
53	Land Surveyors (A1909)—amendment of other acts with respect to interpretation of 'authorised' or 'Government' surveyor.
54	Consolidated Revenue Fund Supplementary Appropriation 1971-1972—issue and appropriation of funds.
55	Licensing (A1932)—non-application of the Act, meal and entertainment permits, unlawful sale or keeping for sale of liquor.
56	Child Welfare (A1960)—public performances involving danger.
57	Rural Reconstruction (A1971)—miscellaneous amendments.
58	Workers' Compensation (A1927)—liability of employers for medical, hospital services, etc., amendments, to the first schedule, application of the Act.
59	Arbitration (Foreign Awards)—make provision for the recognition and enforcement in the State of arbitral awards made in certain foreign countries.
60	Motor Vehicle Tax (A1917)—taxes on motor vehicles, rebates for pensioners, exemption for vintage and veteran cars.
61	Fire Damage Relief (A1967)—owner to produce insurance documents, Minister may insure dwelling house and other amendments.
62	Tourism Development (Staff) (A Tourism Development Act 1970)—transfer and classification of staff, validation of payments.



Area cut-over for woodchips, east coast



Hauling logs, A.N.M. Florentine Valley concession area

State Acts, 1972—continued

Number	Short Title and Summary
63	Traffic (A1925)—amendments to second schedule and operation of the amendments.
64	Crown Lands (Miscellaneous Provisions) Act (No. 2) 1972—miscellaneous provisions.
65	Guesdon Bequest (Administration)—administration of the bequest.
66	Constitution (No. 2) (A1934)—amendments relating to the holding of a seat in either House and financial involvement with the State.
67	Northern Casino—to assist the establishment of an international standard hotel and permit certain forms of gaming.
68	Long Service Leave (A1956)—definition of continuous employment, entitlement to long service leave, payment in lieu of long service leave on death of employee or by agreement, how and when long service leave may be taken, etc.
69	Education (No. 2) (A1932)—teachers' training, capitation grants to non-government schools, subsidies for loan interest to non-government schools and other amendments relating to loan subsidies.
70	Cigarettes (Labelling)—cigarettes only allowed to be sold in packages marked with the prescribed health warning.
71	Advanced Education (A1968)—composition and appointment of the Council of Advanced Education.
72	Fruitgrowing Industry Reconstruction Agreement—authorise implementation of the Commonwealth-State fruitgrowing industry reconstruction agreement.
73	Constitutional Convention—make provision for payment of expenses, etc. of delegates from State Parliament to a convention to review the Commonwealth Constitution.
74	Second-hand Dealers (A1905)—licensing of second-hand dealers, penalties and amendments to the second schedule of the Act.
75	Local Government (No. 2) (A1962; A Launceston Corporation Act 1963)—regulation of timber, etc. carting, inter-municipal tolls, payment and expenditure of tolls on timber carted for export.
76	Apple and Pear Crop (Price Guarantee)—guarantee prices of apples and pears exported to the United Kingdom and Europe during the 1973 season.
77	Crown Land (Miscellaneous Provisions) (No. 3) (A1970)—miscellaneous provisions.
78	Stamp Duties (A1931)—assessment of duty where whole consideration is not provided by the transferee, duty to be paid on certain applications under the Traffic Act 1925.

AGENT-GENERAL FOR TASMANIA IN LONDON

History

The position of Agent-General continues the long tradition of colonial and later State representation in the United Kingdom. As early as 1846 the colony was represented in London by a private agent whose task was to argue the anti-transportation case on behalf of the free settlers of Van Diemen's Land. In 1857 a Board of Immigration Agent was appointed by the colonial government to hold position in England and recruit suitable immigrants for the colony.

Creation of the official position of Agent-General in London dates from the *Agent-General Act* 1885. The function of the Agent General was described in the Act as '... to make better provision than now exists for the transaction of affairs and business of Tasmania in the United Kingdom ...'. The Act also provided for the appointment of an official secretary and sundry clerical staff necessary for running of the office.

Tasmania's first Agent-General was Adye Douglas, who, as Premier, had been responsible for the passing of the 1885 *Agent-General Act*. Adye Douglas appointed himself to the newly created position and retired from the position of Premier of the colony on 8 March 1886. Prior to Federation two more colonial Premiers (Sir Edward Braddon and P. O. Fysh) held the position of Agent-General.

After Federation it was suggested that the States should discontinue separate official representation in London; however, nothing eventuated from these proposals.

In 1911 the *Agent-General Act* was re-written, but no significant changes were made in functions of the office. Under the Act the Agent-General is appointed for a term of three years and is eligible for re-appointment. He may be removed from office by order from the Governor for misbehaviour, incapacity to perform his duties or by a joint address from both Houses of Parliament. For administrative purposes the Agent-General's Office in London is regarded as a branch of the Premier's Department.

Functions

Section 6 of the *Agent-General Act* gives a broad outline of the duties of the position:

- (a) act as representative and resident agent of Tasmania in the United Kingdom, and in that capacity exercise such powers and perform such duties as are conferred upon and assigned to him by the Governor;
- (b) carry out such instructions as he receives from the Minister respecting the commercial, financial, and general interests of Tasmania in the United Kingdom and elsewhere.'

Principal duties of the Agent-General's Office include:

- (i) *Purchasing Agent*—The office acts on behalf of State government departments and semi-government authorities in the purchase of materials for them from European countries and arranges payment in the appropriate currency. The office also organises shipment of the goods on behalf of the purchasing authority.
- (ii) *Migration*—The office advertises and processes applications, by professional persons, for immigration to Tasmania and also operates the scheme for recruitment of skilled tradesmen, who have received job offers in advance of immigrating to Tasmania. The office also provides general information about Tasmania to people interested in migration to the State.
- (iii) *Industrial Promotion*—In 1971 the Agent-General was also designated Trade Commissioner for Tasmania and is concerned with promoting Tasmania as a site for industry and the promotion of the State's trade and tourist industry.
- (iv) *General Publicity*—Window displays at Tasmania House, films about the State, reference books, etc. are organised by the office to promote Tasmania.

Tasmania House, at 458 The Strand, is centrally located in London and acts as a meeting place for Tasmanians in England. A visitors' book is maintained at Tasmania House and Tasmanians in London are asked to sign it. Office facilities are also available at Tasmania House for Tasmanian businessmen in London. Personal mail can be forwarded to the office and held for collection.

Requests to attend regal functions must be made initially to the Agent-General and completed application forms are usually required before April in each year.

Chapter 4

LOCAL GOVERNMENT

GENERAL DESCRIPTION

Historical

Introduction

In Tasmania, the functions of local government are more restricted than in some other countries as the State Government takes direct responsibility for important services such as the police, education, housing, public transport, etc. This peculiarity is not confined to Tasmania and is encountered in the other Australian States, where central control is exercised over functions often delegated to local government authorities in overseas countries; the origin of this tendency probably lies in early colonial history when the continent was virtually empty but the apparatus of government existed at each of the new coastal settlements (Sydney, Hobart, Perth, Melbourne, Adelaide and Brisbane, in order of age). In the Australian situation strong central administrations came first. Local government was a much later growth, the initiative for its creation often coming from the central administration itself in the respective colonies.

The development of local government in Tasmania falls into three distinct phases:

Hobart and Launceston

Hobart Town was granted elected commissioners in 1846, and under an Act of 1852, both Hobart and Launceston were given elected municipal councils. In 1857 the City of Hobart was incorporated, as was the Town of Launceston a year later. Launceston was proclaimed a city in 1888. For the next 76 years these were the only two cities in the State, but in 1964 the number was increased to three when Glenorchy was granted city status.

The form of local government in Hobart and Launceston is governed by separate corporation acts for each authority; in the case of Glenorchy, however, its operation as a city is provided for in the *Local Government Act 1962*.

Rest of State before 1906

Prior to the passing of the *Local Government Act 1906*, there was a great variety of elected Boards, Trusts, etc. in Tasmania, each in control of a district for certain specified objects, but they were all abolished by that Act.

Rest of State after 1906

Currently local government functions throughout the State, the relevant bodies being the Hobart, Launceston and Glenorchy city corporations and 46 municipalities. The genesis of this framework is found in the *Local Government Act 1906* under which a Commission was appointed to divide the State into not more than 60 districts and to subdivide each district into not less than three or more than five wards, each ward including as nearly as practicable an equal rateable area. The Commissioners were empowered to adjust the boundaries of adjoining municipalities, provided that in so dividing the State, any town could be deemed excluded from such boundaries. The cities (at that time, Hobart and Launceston) were not to be included, and were exempt from the provisions of the Act.

The Commissioners, in terms of the Act, divided the State into 49 districts but the later absorption of the municipalities of Queenborough and New Town into the City of Hobart reduced the number to 47; the granting of city status to Glenorchy in 1964 resulted in the present total of 46. The decision to create 49 districts may seem somewhat extravagant for a State with a population of under 190,000 but travel facilities and means of communication at that time were very poor. The creation of fewer but larger districts would have made it extremely difficult for the elected councillors to meet with any regularity, or for municipal inspectors, etc. to effectively cover their area of supervision.

Since 1906, there has come into effect a large body of legislation affecting local government and there has been some widening of function. Accordingly a new consolidating act, the *Local Government Act* 1962, was passed and still operates.

Local Government—Present Organisation

Authority and Functions

The authority for, and the forms of, local government are prescribed entirely by State legislation which has largely been consolidated in the *Local Government Act* 1962. Hobart and Launceston cities operate under separate corporation Acts but the other authorities, including the City of Glenorchy, operate under the Act of 1962.

The functions of the municipalities are set out in broad general terms in Section 176 of the *Local Government Act* as:

‘A Municipality: (a) may for the welfare and good government of its district and the inhabitants thereof: (i) make by-laws; (ii) undertake, make and maintain works, buildings and services; and (iii) order and dispose the common affairs of its members; and (b) shall cause the Queen’s peace to be kept and maintained within its districts.’

Particular authority is given by Section 180 for a council clerk to be a Deputy Clerk of the Peace, Registrar of the Court of General Sessions and Clerk of Petty Sessions in his municipality.

In addition, by certain Acts, the municipalities are given specific responsibilities, e.g. *Health Act*, *Local Courts Act*, etc.

Administration of Justice

This responsibility of the municipality to administer the lower courts of justice is confined to Tasmania. It would appear to be a carry-over from the very early days of local government when the municipality was also required to provide the police force. In all other States the administration is in the hands of a State department. The practice here would now appear to be continued by reasons of expediency. (It should be noted that the process of removing this function from the municipalities has already commenced and the lower courts in the cities of Hobart, Launceston and Glenorchy and the municipalities of Burnie, Clarence and Kingborough are administered by the State. It should also be noted that where municipalities administer the courts, they receive all fines into their revenue and in some instances the council clerks receive additional salary for this court work.)

Electors

Persons eligible to vote in local government elections consist of owners or occupiers of rateable land and their spouses together with ex-servicemen, all of whom must be natural born or naturalised British subjects over the age of 18 years.

In Tasmania, a system of plural voting is employed in which the number of votes per elector is proportional to the assessed annual value of the particular property. Each spouse elector and ex-serviceman elector has one vote.

South Australia and Western Australia also have plural voting for local government elections, while New South Wales, Victoria and Queensland employ the principle of a single vote per owner-occupier. In States with plural voting, entitlement scales are comparatively low (having been set many years ago) so that a majority of electors are actually entitled to the maximum number of votes.

An elector in Tasmania may exercise no more than four votes in any one municipal election except: (i) in the case of subdivided municipalities where elections for each ward are treated as separate; and (ii) where he is voting on behalf of another person or organisation (e.g. a corporation, estate, absentee owner, convict, unnaturalised alien) in which case he may exercise up to 12 votes in each ward.

In no Australian State are unnaturalised aliens, who are owner-occupiers, eligible to vote at local government elections; Tasmania is the only State with a provision for aliens to have another person vote on their behalf.

Councillors

A councillor must be an elector of, and either reside in, or carry on business in, the municipality and is subject to disqualification for certain breaches of conduct. The term of office is three years and one-third of the council retires each year. Councils may comprise six, nine, 12 or 15 councillors. The Warden, Deputy Warden and Treasurer are elected by the Council members on an annual basis. (The electors of the City of Hobart elect the Lord Mayor and in Launceston and Glenorchy the electors elect the Mayor.) The office of Warden is comparable with that of the Mayor of a city or the President of a shire in other States.

Government Intervention

For any of a number of reasons, the Minister administering the *Local Government Act* may consider it necessary to recommend suspension of the elected councillors and the appointment of a commission, or in certain cases an administrator, to carry on municipal government in a particular municipality. In 1973 Zeehan was being administered by a multi-member commission. Commissioners and administrators are appointed by the Governor. Provision exists under the Act for the restoration of elected councils, subject to certain conditions being satisfied; this occurred during 1973 in Clarence, where a 12-man council was elected from four wards.

Cities, Municipalities and Towns

In Tasmania there are only two categories of local government; a municipality or a city. The Act provides for the establishment of towns and indicates requirements before such towns are proclaimed but these are not municipal administrative units. Generally an area is proclaimed as a town to bring into action certain provisions relating to rating and to building requirements. Before a municipality can petition for a town to become a city, the town must have had, for five years before the petition, a population of not less than 20,000.

Other than this population requirement for a city there are no provisions, such as exist in some of the other States and in Canada, for enlarging or diminishing the status of municipalities to accord with increasing or decreasing population.

Sources of Revenue

There are four main sources of local government revenue, namely rates, government grants, business undertakings and services. The rates are levied at so much in the dollar on the assessed annual value without any fixed maximum. Receipts from rates have not for sometime met the expense of the increasing range and cost of the services supplied. Government grants are a recognised means of increasing the revenue of municipalities.

The municipalities are unable to collect any rates for land owned by the Crown but where services are provided, the Crown does pay for such services. Grants and subsidies are made, generally speaking, to assist the municipalities to meet the overall costs of municipal government and sometimes the grant is made to assist in a particular project. Grants are sometimes

made to induce the councils to provide or develop certain services and may also be made to assist in paying the costs of particular services shared by two or more adjoining municipalities. Earnings from business undertakings include charges for the supply of water and for the use of abattoirs. Some of these businesses show a small profit but, in most cases, the fees demanded are just sufficient to cover the cost of providing the services.

In the matter of water supply, where a number of local government areas could be served from a common source, the State Government did not consider a system of individual grants adequate and created two statutory authorities to act as 'wholesalers', the affected local government authorities acting as 'retailers'. This development is described later in the Chapter under 'Water Supply and Sewerage'.

Municipal Commission

The *Local Government Act* 1962 made provision for a Municipal Commission whose prime function was to inquire into and report on the need for changes in municipal boundaries. This Commission recommended a reduction in the number of local government authorities from 49 to 20. However, because of prolonged litigation the recommendations were not implemented and the Commission ceased to exist at the end of March 1971.

In 1971 amendments were made to the *Local Government Act* 1962 in relation to appointment, functions and powers of a new Municipal Commission. The new Municipal Commission was appointed on 31 May 1972. Apart from dealing with routine matters, the Commission is required to inquire into and report on any matter or question relating to local government referred to it by the Minister for Local Government. The Minister has given the Commission the following terms of reference:

- (i) Whether there should be creation, abolition, amalgamation or partitioning of any municipality.
- (ii) To inquire into and report on: (a) functions of municipalities and whether financial resources available are sufficient for these purposes; (b) basis of municipal rating and whether changes are needed; (c) whether the present pattern of municipal boundaries contributes to their financial problems and whether re-arrangement of boundaries would improve the situation; (d) means of increasing financial resources available to municipalities.
- (iii) Division of the State or any part of the State into counties or regional areas and, if desirable, how best to achieve the division. In the event of this type of partition being recommended the Commission is to state: (a) the functions, powers, responsibilities, composition, method of appointment, etc. of the governing body; (b) effect of the appointment of such bodies upon existing municipalities.

At the end of April 1973 the Commission had spent seven months on its inquiry in relation to the preceding terms. Evidence has been taken from municipalities, Commonwealth and State officials, academics and other interested parties. It was planned to complete evidence-taking by July 1973 and then commence a report scheduled for release in early 1974.

PLANNING AUTHORITIES

Town and Country Planning Commissioner's Office

Introduction

Before the Federal Labor Government took office in 1941, governments (both State and Commonwealth) had shown little interest in town planning legislation. The war-time Federal Labor Government encouraged activity in this field and in the period 1944-45 four States, including Tasmania, passed legislation with provisions largely based on existing British and New Zealand planning statutes.

Passed in 1944, the Tasmanian *Town and Country Planning Act* applied only to areas which were proclaimed as a result of municipal requests. The Act created the position of Town and Country Planning Commissioner and made him responsible to the Minister for Lands and Works; any decisions made by the Commissioner are subject to ministerial approval. In 1962 the *Town and Country Planning Act* was repealed and its provisions incorporated in *PART XVIII* of the *Local Government Act* 1962 under which the powers of the Commissioner were broadened so that, with the approval of the Minister, he could require any municipality to prepare a planning scheme.

The Governor appoints the Commissioner for a period not exceeding five years but may terminate his appointment at any time. The Commissioner is also a member of the following bodies: the Building Regulations and Nomenclature Boards; and the Co-ordination of Mapping Committee.

The Town and Country Planning Commissioner's office exercises statutory power in its own right but for administrative convenience it is regarded as a branch of the Public Works Department. The office consists of the Commissioner, the Deputy Commissioner and a small staff. The Town and Country Planning Commissioner's office should not be confused with the Southern Metropolitan Master Planning Authority, described next in this Chapter.

Functions

Briefly the function of the Commissioner is to approve municipal planning schemes and to certify that sub-division proposals are in accordance with the schemes and meet the other requirements as laid down in the *Local Government Act* 1962. Also the Commissioner may require: (i) any municipality to prepare a planning scheme; (ii) two or more municipalities to co-operate in the preparation of a master planning scheme; he is empowered to specify the completion date for such schemes. If the municipality fails to comply with the Commissioner's requests, then the Commissioner may prepare a scheme, the municipality meeting all preparation costs. A municipality may voluntarily prepare a planning scheme and submit it to the Commissioner for approval. If a scheme, prepared for an area to which a master plan applies, is submitted to the Commissioner for approval then the Commissioner, before giving a decision, must consult the authority which prepared the master plan.

The Commissioner is also empowered to deal with objections to any planning scheme, including master plans prepared by a master planning authority.

In relation to non-rural sub-divisions the Commissioner's approval is required, all activities of this nature being subject to *PART XVIII* of the Act.

Legal Procedure for a Planning Scheme

After the Commissioner gives provisional approval to a planning scheme the municipality must make public the scheme and place a copy in the municipal office for public inspection. Following public notification a three month period is allowed for objections to the scheme by: (i) any owner or occupier of rateable property in the area affected; (ii) health officers as defined in the *Public Health Act* 1962; (iii) the municipality only if the scheme has been altered by the Commissioner. Objections are lodged with the municipality which then forwards the objections, together with a statement of its opinion on them, to the Commissioner for his consideration.

If, because of the number and magnitude of objections to a planning scheme, the Commissioner considers it should be substantially modified, he may: (i) recommend that the Minister reject it; (ii) direct that a specified part of the scheme be done again. In both of these cases another scheme or portion has to be prepared and submitted to the Commissioner for provisional approval.

After all objections have been dealt with and the necessary modifications made to the plan, the Commissioner, with the Minister's approval, approves and seals the scheme. The sealed scheme is then publicly notified, placed before both Houses of Parliament and recorded in the central plan register.

Scope of Plan

A town and country planning scheme may deal with the following planning matters: (i) all roads (public and private), streets, footpaths, building lines and land adjacent to foreshores; the plan should cover both alteration to existing roads, streets, etc. and proposed new roads, streets, etc.; (ii) positioning of buildings and the general nature and design of buildings; (iii) preservation of land for afforestation, recreation and public works; (iv) preservation of objects of historical or natural interest; (v) sewerage and drainage; (vi) lighting and water supply systems; (vii) specification of the use to which areas may be put; (viii) provision of amenities; (ix) stages of development; (x) ancillary or consequential works.

Southern Metropolitan Master Planning Authority*Introduction*

The Southern Metropolitan Master Planning Authority is responsible for planning the development of an area best defined broadly as a triangle based on Pontville (Brighton Municipality), Snug (Kingborough Municipality) and Seven Mile Beach (Clarence Municipality), which includes the Cities of Hobart and Glenorchy and also those parts of Brighton, Kingborough and Clarence Municipalities which are likely, in the future, to experience urban expansion because of their proximity to Hobart.

Representation and Finance

The *Local Government Act* 1962 prescribes that each city shall have the right to appoint three representatives and each municipality two representatives to the authority. The authority is empowered to make contracts, accept trusts of properties for townplanning purposes, make by-laws for domestic purposes and obtain a townplanning contribution based on the annual value of all rateable property.

In March 1973 the Hobart City Council petitioned to withdraw from the authority. At a meeting of the authority in April it was decided to: (i) recommend to member councils that the authority be continued; and (ii) advise the Hobart City Council that the authority was prepared to continue to meet Hobart's mapping requirements subject to a satisfactory financial arrangement being agreed to.

Functions of the Authority

The main functions of the Authority are: (i) the technical and legal preparation of a master plan for the prescribed area (the detailed planning nevertheless remaining the responsibility of each constituent municipality or city); (ii) the conduct of surveys and studies to facilitate the preparation of the master plan; and (iii) preparation of maps of the developed and developing parts of the metropolitan area.

The Master Plan

The Master Plan 1962 was put up for statutory exhibition (for a compulsory period of three months). Following objections the Authority withdrew the plan and the State Government decided to undertake a full transportation study, the results of which became available late in 1964. An interim 'Townplanning Policies Map 1964' was issued as a guide to member councils in their detailed planning and to other authorities concerned with development in the Southern Metropolitan Area.

Tamar Regional Master Planning Authority

The Tamar Regional Master Planning Authority was established in September 1969, following a petition to the State Government by the City of Launceston and the Municipalities of Beaconsfield, George Town, Lilydale, Longford and St Leonards. Westbury and Evandale, two essentially rural municipalities, declined to join the Authority.

The Authority consists of three representatives from the Launceston City Council and two from each of the member municipalities. Financial support is given by the constituent councils, in proportion to the annual value of rateable property.

The principal objective of the Authority is the unified promotion and development of the Tamar Valley region. A consortium of town planning consultants was engaged to produce a preliminary plan which was completed in mid-1971. This plan is the basis for the regional plan being developed by the Authority's staff. The basic approach to the plan has been to consider the region as four principal divisions aligned north to south along the Tamar-South Esk Rivers:

- (i) *Northern Tamar*—centred on the Port of Bell Bay and the Tamar Entrance. The principal theme of this area is the development of industrial potential and port facilities.
- (ii) *Central Tamar*—extends from Moriarty Reach to Dilston. It is proposed that this region should be promoted as a recreation and tourist area, and that the existing scenic landscape should be preserved.
- (iii) *Southern Tamar*—centred upon Launceston and contains the urban and administrative centre of the region. In this area tertiary industry, professional services, education facilities, trade and commerce are to be developed.
- (iv) *Esk Valley*—in this area the proposal is to rationalise transport links and develop transport oriented industries.

While developing the master plan, consideration is being given to the environmental effects of proposals and how to preserve areas. Further tasks of the Authority are promotion of the region and evaluation of the region's resources. The Authority has completed a survey of existing secondary industries in the region. This survey will be used as a basis for identifying target industries which might strengthen the region's economic base. A survey has also been undertaken to identify the region's tourist resources and from the results a programme of priorities for promotion, in conjunction with State and regional tourism authorities, was developed.

North West Master Planning Authority

This Authority was constituted in February 1971 in accordance with the provisions of the *Local Government Act 1962*. The eight member municipalities are Latrobe, Kentish, Devonport, Ulverstone, Penguin, Burnie, Wynyard and Circular Head. Constituent councils each have two members on the Authority. Finance is obtained from member municipalities in proportion to the annual value of rateable property.

Containing a population of approximately 86,000, the Authority's area of jurisdiction embraces eight principal towns, rich primary producing and grazing districts, substantial industrial establishments, four ports and three airports.

The objective of the Authority is to promote the development of the region along sound economic and environmental lines. Under the *Local Government Act*, it has the responsibility of preparing a master plan for the region. A firm of planning consultants has completed a comprehensive survey of the region and is finalising an outline development plan and report.

Transportation Studies

Hobart

The 1964 Hobart Area Transportation Study examined traffic problems in detail and brought to public attention the need for greatly increased expenditure in meeting these problems. The findings of the study were that metropolitan traffic would increase nearly 100 per cent during the 20 years following the survey and that a number of major new roads would be required.

During 1970-71 the Transportation Study was updated to make allowances for changes in traffic priorities since the 1964 investigation.

Launceston

The realisation that existing traffic problems in the Launceston area would become more acute with the passage of time, led to the undertaking of a traffic survey during 1967 which closely paralleled the Hobart study.

The purpose of the survey was to predict the transportation needs of Urban Launceston some 20 years in the future and to determine what improvements to the existing transportation system would be appropriate to meet these needs.

Main proposals resulting from the survey were: a new bridge across the South Esk at Royal Park; a north-south expressway along the east bank of the Tamar; a second expressway, also running north to south, in the valley of the North Esk, curving westwards to the Bass Highway at Youngtown; and connecting roads (one-way in the central business district and two-way in the outer areas) between the major elements of the system.

FINANCE

Introduction

For local government purposes Tasmania is divided into 49 areas, comprising 46 municipalities and the Cities of Hobart, Launceston and Glenorchy. There are no unincorporated areas.

Local government finance statistics in Tasmania are compiled by the Bureau of Census and Statistics from the following sources:

(i) *The 46 Municipalities:* Each municipality is required to submit annually to the Auditor-General a 'Statement of Accounts' in pursuance of section 329 of the *Local Government Act 1962*; copies of these statements are made available to the Bureau. The 'Statements of Accounts' are compiled by the municipalities on a *cash receipts and payments* basis and two basic types of accounts are distinguished, namely revenue and loan accounts.

(ii) *The Cities:* The Cities of Hobart, Glenorchy and Launceston submit annually to the Auditor-General statements of accounts compiled on an *income and expenditure* basis but these are analysed on a cash receipts and payments basis by the Bureau for combination with municipal data.

The term 'local government' is employed only in relation to the municipalities and city corporations. Details of semi-government authorities concerned with water supply appear in the last section of this Chapter; such authorities provide bulk water but reticulation and sale to householders remain a local government function. Since 1961 the Metropolitan Water Board has incurred loan debts which, under earlier arrangements, would have been entered as the water loan debts of Hobart, Glenorchy, Clarence and Kingborough local government authorities.

Value of Property

Revenue for local government authorities in Tasmania is derived principally from rates. Under the *Local Government Act 1962*, rates may be based on annual value (i.e. annual rental from a property if rented), unimproved value (i.e. value of land only), the capital value (i.e. value of land plus improvements), or finally upon a composite value incorporating the unimproved value plus some arbitrary proportion of the value of improvements.

In Tasmania, it has been usual for rates to be based on annual values despite isolated and unsuccessful campaigns in favour of taxing on unimproved value only. In estimating annual value, the valuer is taking into account not only the land but also the improvements (e.g. buildings) so there is, in actual fact, a close relationship between total capital value of any property and its assessed annual value. The *Land Valuation Act 1950* fixes a minimum relationship between annual value and capital value (four per cent) but sets no maximum.

The following table shows the total value of all properties in the State and gives individual details for local government authorities with a total capital value exceeding \$20m at 1 July 1972:

Value of Properties: Principal Local Government Authorities
(\$ Million)

Local Government Authority	Year of Revaluation (a)	All Property				Rateable Property	
		Total Capital Value at 1 July		Unimproved Value at 1 July		Assessed Annual Value	
		1971	1972	1971	1972	1970-71	1971-72
Hobart	1969	357.94	368.73	116.72	117.29	23.42	23.96
Launceston	1970	164.57	168.24	55.86	55.97	13.15	13.41
Glenorchy	1968	158.61	163.21	39.91	40.17	10.33	10.64
Clarence	1969	135.32	141.73	38.97	39.74	7.20	7.52
Burnie	1970	103.28	106.02	32.64	32.96	6.25	6.41
Devonport	1972	81.71	101.87	25.11	36.09	4.59	4.70
St Leonards	1971	52.74	55.46	11.75	11.86	2.87	3.70
Kingborough	1972	39.64	52.89	10.03	16.28	1.95	2.28
New Norfolk	1971	47.99	48.73	7.36	7.40	2.06	2.05
Wynyard	1972	31.72	43.59	5.52	10.13	1.72	1.76
Ulverstone	1969	41.15	42.49	9.47	9.54	2.24	2.32
Beaconsfield	1969	38.97	40.39	8.00	8.06	2.32	2.23
Circular Head	1968	33.85	34.17	4.87	4.88	1.63	1.68
George Town	1972	25.03	33.71	3.08	5.65	1.49	1.64
Latrobe	1971	28.59	29.21	4.76	4.77	0.94	1.31
Longford	1969	27.35	27.76	5.29	5.29	1.32	1.33
Lilydale	1971	25.25	25.81	5.60	5.61	1.27	1.60
Westbury	1968	24.56	24.91	4.53	4.54	1.09	1.11
Deloraine	1971	24.17	24.32	3.68	3.65	0.91	1.11
Scottsdale	1972	17.86	21.54	3.41	4.30	0.90	0.92
Oatlands	1971	21.69	21.52	4.40	4.33	0.68	0.87
Huon	1970	20.54	20.86	3.05	3.05	0.89	0.98
Sorell	1972	18.28	20.46	4.94	5.42	0.80	0.82
Remaining Municipalities ..	..	247.26	245.90	45.52	45.54	10.94	11.38
Total Tasmania .. .. .	..	1,768.07	1,863.54	454.47	482.53	100.96	105.74

(a) Latest revaluation effective from 1 July of year shown.

System of Valuation

The valuation of property is carried out by a State Government authority, the Land Valuation Branch; its valuations form the basis for two distinct taxes: (i) land tax collected by the State on the basis of unimproved land values; (ii) rates collected by local government authorities on the basis of assessed annual values. Since it is impossible to value all the properties within the State in the course of a single year, valuation is carried out on a rotational basis, e.g. Devonport and Wynyard valued in 1967 and again in 1972.

The table that follows shows the value of property in Tasmania over the last 10 years:

Total Property Valuation in All Local Government Areas
(\$ Million)

Year	Total Capital Value at 1 July	Unimproved Value at 1 July	Rateable Annual Value	Year	Total Capital Value at 1 July	Unimproved Value at 1 July	Rateable Annual Value
1963-64 ..	1,075.09	271.63	57.37	1968-69 ..	1,452.38	374.49	83.30
1964-65 ..	1,140.40	290.52	61.27	1969-70 ..	1,571.96	411.72	94.39
1965-66 ..	1,202.22	316.91	68.54	1970-71 ..	1,691.37	441.88	100.96
1966-67 ..	1,271.87	328.50	72.47	1971-72 ..	1,768.07	454.47	105.74
1967-68 ..	1,350.74	350.81	76.76	1972-73 ..	1,863.54	482.53	

Total Receipts and Payments

The following table shows total receipts and payments of the Tasmanian municipalities and cities:

Local Government Authorities Total Receipts and Payments: All Funds (\$'000)

Year	Opening Balance (a)	Receipts			Payments			Surplus (+) or Deficit (-)
		Loan Accounts (b)	Revenue Accounts (c)	Total	Loan Accounts	Revenue Accounts	Total	
1965-66 ..	5,819	7,527	18,187	25,715	8,301	17,863	26,164	- 451
1966-67 ..	5,374	7,595	20,122	27,717	8,044	19,563	27,607	+ 109
1967-68 ..	5,486	9,611	21,708	31,320	9,325	20,942	30,267	+1,053
1968-69 ..	6,539	8,682	23,959	32,641	8,634	23,249	31,883	+ 758
1969-70 ..	7,297	7,469	25,914	33,383	7,972	24,816	32,788	+ 595
1970-71 ..	7,893	8,164	28,236	36,400	7,494	27,195	34,689	+1,711

(a) Bank balances (less unrepresented cheques), securities and cash on hand.

(b) Includes loan raisings, sales, capital grants received, etc.

(c) Includes grants from the Metropolitan Water Board to cover working expenses.

Business Undertakings

In the analysis of the local government authority accounts a distinction is drawn between 'ordinary services' and 'business undertakings'.

The classification 'business undertakings' is used in Australian local government finance statistics to include municipal tram and bus services, municipal electricity supply (generation or distribution), municipal water and sewerage schemes, municipal abattoirs, etc. In Tasmanian local government finance statistics, electricity supply ceased to appear as from 1948-49 (the Hydro-Electric Commission is now the sole supplier). Municipal tram and bus services ceased to appear as an item in 1955-56, the Metropolitan Transport Trust having acquired the city transport services operating in Hobart and Launceston. Consequently, the only activities under the heading of municipal 'business undertakings' in current Tasmanian statistics relate to water supply, sewerage and abattoirs.

Rate Collections

There is considerable diversity in the types of rates imposed by individual local government authorities. In Hobart, virtually all properties are subject to the one consolidated rate and a similar position exists in Launceston; in most municipalities, however, the property holder, after being charged the basic road, light, health and general rates, is subject also to additional rates assessed according to the location of the property and the nature of the services provided (e.g. a fire brigade rate for properties which are close enough for fire brigade protection, a water rate where the service is available). Property holders in a particular district may be called upon to pay a special rate for an improvement peculiar to that area (e.g. a reserves and recreation rate to finance a sports ground or a garbage rate to finance a disposal service).

The following table shows details of the rates collected in Tasmania during a three-year period:

**Rates Received (a) by Local Government Authorities
(\$'000)**

Rate	1968-69	1969-70	1970-71
Ordinary Services (b)—			
General	4,898	5,047	5,293
Light	232	254	259
Road	3,647	4,013	4,257
Health	324	354	377
Sanitary and Garbage	252	247	254
Reserves and Recreation	720	832	939
Halls	80	85	96
Library	119	144	145
Fire Brigade	122	145	144
Drainage	92	104	119
Other	25	57	66
Total	10,510	11,282	11,950
Business Undertakings—			
Water	3,413	3,613	3,910
Sewerage	1,983	2,287	2,673
Total	5,395	5,899	6,583
Grand Total	15,905	17,181	18,533

(a) Net of refunds.

(b) Where a single consolidated rate has been charged (e.g. Hobart and Launceston), the collection has been dissected between 'ordinary' and the two 'business undertakings' components but the 'ordinary' component has been entered, without further analysis as 'general'.

Revenue of Local Government Authorities

The biggest proportion of local government revenue comes from rates (66 per cent in 1970-71) and these are direct charges on owners of property.

After rates, the next most important sources of revenue are: (i) Government and semi-government grants; and (ii) charges for public works and services. The next table shows, for a three-year period, the total annual revenue receipts, according to source, of all municipalities and cities.

**Local Government Authorities
Revenue Fund Receipts, Ordinary Services and Business Undertakings
Classified According to Source
(\$'000)**

Source of Receipts	1968-69	1969-70	1970-71
Ordinary Services—			
Rates	10,510	11,282	11,950
Licences	169	180	175
Total	10,679	11,463	12,125
Public Works and Services—			
Health	61	59	74
Sanitary, Garbage and Street Cleaning	17	19	21
Recreational Facilities	350	415	466
Halls and Community Centres	65	71	73
Council Residences	65	83	70
Cemeteries and Crematoria	126	142	155
Roads	100	124	102
Parking	480	563	634
Private Works	345	375	364
Plant Sales	49	41	165
Other	686	864	838
Total	2,345	2,753	2,963

Local Government Authorities
Revenue Fund Receipts, Ordinary Services and Business Undertakings
Classified According to Source—continued
(\$'000)

Source of Receipts	1968-69	1969-70	1970-71
Ordinary Services—continued			
Government and Semi-Government Grants—			
Roads	1,544	1,600	1,932
Other	286	272	314
Total	1,829	1,872	2,246
Other Receipts (a)	773	862	1,021
Total Ordinary Services	15,626	16,949	18,351
Business Undertakings—			
Water Supply—			
Rates	3,413	3,613	3,910
Government and Semi-Government Grants ..	1,361	1,345	1,604
Other	545	550	549
Total	5,319	5,508	6,063
Sewerage—			
Rates	1,983	2,287	2,673
Government and Semi-Government Grants ..	114	156	152
Other	165	207	223
Total	2,263	2,649	3,048
Abattoirs, Other (b)	750	808	769
Total Business Undertakings	8,333	8,965	9,881
Grand Total	23,959	25,914	28,236

(a) Includes additions to sinking funds, interest earnings, net deposits, donations and tolls.

(b) Comprises fees charged, sales of products, etc.

Revenue Receipts, Summary

The preceding table does not show combined figures for all rates and government grants; totals for these items are included in the summary which follows:

Revenue Fund Receipts, Ordinary Services and Business Undertakings
(\$'000)

Year	All Rates (Net)	Licences	All Govt and Semi-Govt Grants	Business Undertakings (a)	Ordinary Services (a)	Other Receipts	Total Receipts
1965-66 ..	11,512	114	2,818	931	2,158	654	18,187
1966-67 ..	12,858	134	3,024	1,086	2,161	858	20,122
1967-68 ..	14,371	147	3,049	1,213	2,261	668	21,708
1968-69 ..	15,905	169	3,305	1,460	2,345	773	23,959
1969-70 ..	17,181	180	3,372	1,566	2,753	862	25,914
1970-71 ..	18,533	175	4,003	1,541	2,963	1,021	28,236

(a) Excludes rates and grants which are shown separately.

Revenue Payments by Local Government Authorities

The following table shows annual payments by local government authorities from revenue funds:

Local Government Authorities
Revenue Fund Payments, Ordinary Services and Business Undertakings
Classified According to Service
(\$'000)

Payments for—	1968-69	1969-70	1970-71
Ordinary Services—			
General Administration	1,968	2,217	2,544
Loan Charges—Interest	1,677	1,875	2,013
Redemption	1,413	1,610	1,647
Sinking Fund Contributions	168	173	190
Total	3,258	3,658	3,850
Public Works and Services—			
Road, Street and Bridge Construction	4,784	4,850	r5,551
Other Road Services (a)	—92	—154	—158
Drainage	64	95	132
Health	425	395	416
Sanitary, Garbage and Street Cleaning	636	641	674
Recreational Facilities	1,189	1,279	1,431
Halls and Community Centres	203	220	217
Fire Brigades	86	140	76
Cemeteries and Crematoria	147	158	171
Libraries	96	116	298
Street Lighting	361	387	392
Private Works	232	254	r233
Parking	237	281	502
Hotmix and Asphalt Plant	189	225	244
Other	623	553	477
Total	9,179	9,439	r10,656
Grants	582	631	701
Other Payments	63	132	—161
Total Ordinary Services	15,049	16,077	r17,591
Business Undertakings—			
Water Supply—			
Loan Charges—Interest	816	828	843
Redemption	609	613	796
Sinking Fund Contributions	25	25	19
Total	1,451	1,466	1,658
Other Payments (b)	3,794	4,050	4,322
Total Water Supply	5,244	5,516	5,980
Sewerage—			
Loan Charges—Interest	968	1,105	1,239
Redemption	473	539	582
Sinking Fund Contributions	41	43	38
Total	1,482	1,687	1,859
Other Payments (c)	841	975	1,144
Total Sewerage	2,323	2,662	3,002

Local Government Authorities
Revenue Fund Payments, Ordinary Services and Business Undertakings
Classified According to Service—continued
(\$'000)

Payments for—	1968-69	1969-70	1970-71
Business Undertakings— <i>continued</i>			
Abattoirs—			
Loan Charges—Interest.. ..	50	49	54
Redemption	124	27	34
Sinking Fund Contributions..	9	10	9
Total	183	86	97
Other Payments (c)	449	475	524
Total Abattoirs	632	561	621
Total Business Undertakings ..	8,200	8,739	9,603
Grand Total	23,249	24,816	r 27,195

(a) Net plant working (plant maintenance and operating expenses *less* hire charged to plant working accounts *plus* plant purchase (\$683,000 in 1970-71)).

(b) Comprises grants paid to semi-government authorities (principally the Metropolitan Water Board), working expenses, capital expenditure out of revenue fund and sundry payments.

(c) Comprises working expenses, capital expenditure out of revenue fund and sundry payments.

The Beaconsfield municipality is served by the West Tamar Water Supply Scheme, which the municipality maintains and manages as agent for the Rivers and Water Supply Commission. All debt in the municipality in respect of water supply became the responsibility of the Commission on 1 July 1960; interest and principal repayments to the Commission on loans raised for the purpose of this water have been included in 'Water Supply—Other Payments' in the previous table.

Launceston, Burnie, Devonport and Campbell Town operate municipal abattoirs; other abattoirs in Tasmania are operated by the private sector.

Below is a summary of local government revenue fund payments:

Payments, Ordinary Services and Business Undertakings
(\$'000)

Year	Adminis- tration (a)	Loan Charges (b)			Other Payments			Total
					Ordinary Services		Business Under- takings	
		Interest (c)	Redemp- tion	Sinking Fund Contribu- tions	Roads, Streets, Bridges	Other		
1965-66 ..	1,392	2,574	2,009	202	4,205	3,913	3,568	17,863
1966-67 ..	1,558	2,815	2,188	218	4,224	4,561	4,001	19,563
1967-68 ..	1,753	3,159	2,235	233	4,687	4,425	4,450	20,942
1968-69 ..	1,968	3,512	2,619	243	4,784	5,039	5,084	23,249
1969-70 ..	2,217	3,858	2,789	250	4,850	5,353	5,500	24,816
1970-71 ..	2,544	4,149	3,059	256	r 5,551	r 5,648	5,989	r 27,195

(a) Administration charged to ordinary services only; includes interest on bank overdraft.

(b) Ordinary services and business undertakings.

(c) Excludes interest on bank overdraft.

Pay-roll Tax (Partial Exemption)

In 1971 the Commonwealth Government agreed to hand over pay-roll tax to State Governments and to reimburse the States for some of the loss of revenue arising from partial pay-roll tax exemption for local government authorities. Local government authorities are required to pay pay-roll tax on wages relating to water, sewerage, abattoirs and any trading activity (e.g. off-street parking) as prescribed in the *Local Government Act* 1962. Exemption of non-trading activities from pay-roll tax saved local government approximately \$100,000 during the full financial year.

Loan Receipts, Payments and Debt

At 30 June 1971 the aggregate loan debt of all local government authorities was \$75,753,000, of which only \$926,000 (i.e. 1.2 per cent) was in respect of debt due to the State Government. The principal Tasmanian sources of loans for local government authorities are banks, superannuation and various trust funds, insurance companies; and for cities, public issues. The amount that any local government authority can raise is governed by: (i) the difficulty in finding willing lenders; (ii) the fact that the approval of the State Treasury is required; and (iii) under the *Local Government Act* 1962, total loan indebtedness is strictly controlled and cannot exceed a predetermined figure based on annual income for the preceding three years.

The following table shows, for a three-year period, the loan account receipts of all local government authorities:

Local Government Authorities: Loan Account Receipts
(\$'000)

Particulars	1968-69	1969-70	1970-71
Loan Raisings for—			
Sewerage	2,671	2,004	2,134
Road, Street and Bridge Construction	1,856	1,781	1,527
Water Supply	666	700	1,020
Recreational Facilities	530	578	587
Other	1,910	1,731	1,696
Total Raisings	7,633	6,794	6,964
Government and Semi-Government Grants	697	418	681
Other Receipts (a)	350	258	519
Total Receipts	8,682	7,469	8,164

(a) Includes recoveries of capital expenditure, sales of materials credited to loan funds, contributions from the private sector credited to loan funds, etc.

The next table shows, for a five-year period, details of payments from the loan accounts of all local government authorities:

Local Government Authorities: Payments from Loan Accounts
Classified According to Purpose
(\$'000)

Purpose	1966-67	1967-68	1968-69	1969-70	1970-71
Water	1,612	2,160	1,227	1,108	1,603
Sewerage	2,476	2,786	2,598	2,535	1,982
Drainage	248	268	359	371	293
Road, Street and Bridge Construction	1,962	1,904	2,048	2,046	1,915
Recreational Facilities	586	622	653	590	707
Halls and Community Centres	66	180	202	220	128
Other	1,095	1,405	1,548	1,101	867
Total	8,044	9,325	8,634	7,972	7,494

The following table shows, in summary form, loan raisings, loan debt and sinking funds:

Local Government Authorities: Loan Raisings, Loan Debt and Sinking Funds
(\$'000)

Year	Loan Raisings During Financial Year			Loan Debt at 30 June			Total of Sinking Funds at 30 June (c)
	From State Government (a)	From Other Sources (b)	Total	To State Government	To Other Creditors	Total	
1965-66 ..	82	6,430	6,512	977	51,119	52,096	991
1966-67 ..	21	6,960	6,981	907	55,980	56,888	1,206
1967-68 ..	79	8,104	8,183	917	61,903	62,821	1,496
1968-69 ..	35	7,599	7,633	917	66,922	67,839	1,706
1969-70 ..	44	6,751	6,794	934	70,918	71,854	1,893
1970-71 ..	179	6,784	6,964	926	74,826	75,753	2,164

(a) These advances were from the State Treasury direct, and exclude those from authorities such as the Housing Department and the Metropolitan Transport Trust.

(b) Includes advances from the Housing Department and the Metropolitan Transport Trust.

(c) Sinking funds maintained by municipalities and cities for debt redemption purposes.

Source of Loan Funds

It can be seen from the preceding table that the local government loan debt includes only a small liability in respect of advances made by the State Treasury. The proportion of total debt now owed to State authorities (but not directly to the Treasury) has increased somewhat, principally due to co-operation between individual municipalities and the State Housing Department. In planning the establishment of large housing estates, the Housing Department has been concerned with the provision of certain essential services (e.g. water and sewerage); where such services have required capital expenditure by a municipality, the Department has made some loan funds available.

Instalment Debentures

Much of the debt of the municipalities is in the form of instalment debentures which involve equal periodic payments (usually yearly or half-yearly); such payments are credited to redemption and interest in changing proportions, the accounting being the same as used to record home instalment purchase transactions.

Employees of Local Government Authorities

The following table shows total employees of local government authorities over a five-year period. The number of employees of individual authorities ranges from over 600 persons to as low as two persons.

Local Government Authorities: Persons Employed (a) at 30 June

Particulars	1968	1969	1970	1971	1972
General Administration—					
Males	486	503	499	504	537
Females	192	188	202	220	221
Persons	678	691	701	724	758
All Other Services—					
Males	1,824	1,813	1,885	1,923	(b) 2,442
Females	59	62	58	37	20
Persons	1,883	1,875	1,943	1,960	2,462
Total—					
Males	2,310	2,316	2,384	2,427	2,979
Females	251	250	260	257	241
Persons	2,561	2,566	2,644	2,684	(b) 3,220

(a) Includes permanent and temporary employees but excludes part-time employees.

(b) Includes persons employed on local government work programmes financed by special Commonwealth unemployment relief grants.

WATER SUPPLY AND SEWERAGE

Introduction

Water supply and sewerage were once exclusively the responsibility of the cities and municipalities; two semi-government authorities now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart and Launceston areas, and directly to certain industrial consumers.

Metropolitan Water Board: This semi-government authority is responsible for the supply of water in the Hobart, Clarence, Glenorchy and Kingborough local government authority areas. A detailed description of the Board's functions and financial relationships with the individual local government authorities is given in the next section of this Chapter, 'Metropolitan Water Board'.

Rivers and Water Supply Commission: The *Water Act 1957*, proclaimed as from 1 September 1958, conferred on the Rivers and Water Supply Commission all powers which had been previously exercised by the Water, Sewerage and Drainage Board. The Commission exercises a general control over the utilisation of the State's water resources and has specific functions in relation to local government authority water and sewerage schemes. It also operates the North Esk Regional Water Supply, West Tamar Water Supply, Prosser River Supply and Cressy-Longford Irrigation Schemes. (Details of the last scheme appear in the Chapter 'Primary Industry—Rural'.) A more detailed description of the Commission's functions in relation to local government and of the three water supply schemes is contained in a later section, 'Rivers and Water Supply Commission'.

Metropolitan Water Board

The overall control of water supply in Hobart, Clarence, Glenorchy and Kingborough is vested in the Metropolitan Water Board but the four local government authorities retain primary responsibility for reticulation and sale to consumers. The Board has a large pumping station and treatment plant at Bryn Estyn on the Derwent, pipeline capacity being 30m gallons per day. Before the Board came into operation in 1962, the four metropolitan local government authorities had their own supply schemes (e.g. Hobart was supplied from Lake Fenton and Mount Wellington); these schemes still operate but the Board's pumping works based on the Derwent now give an assured supply.

The Board also controls the Southern Regional Water Supply Scheme which draws water from the Derwent and was originally constructed to supply Hobart's eastern shore suburbs. (Reticulation is, however, still the responsibility of the local government authorities.) On the eastern shore, the Board has now extended its service to the towns of Cambridge, Midway Point, Sorell, Seven Mile Beach, Lauderdale and Rokeby, while western shore extensions serve Margate, Snug and Howden.

Financial Relationship

Under the *Metropolitan Water Board Act 1961*, the four metropolitan local government authorities no longer borrow money for metropolitan water works, but are provided with the necessary capital by the Board which obtains its funds from private lenders and the State Loan Fund; the local authorities in turn being required to make revenue contributions to the Board. The effect of this arrangement can be seen in State local government loan debt tables where the debt in respect of water shows only very minor annual increases; in effect, the expenditure of the four metropolitan municipalities for water works undertaken since 1961 is reflected in the debt of the Board and not in debt of the municipalities. At 30 June 1972, the loan debt of the Board to the State Treasury was \$16.46m and to other lenders, \$5.22m.

The financial relationship between the Board and the four metropolitan local government authorities is summarised in the following table:

Metropolitan Water Board: Income and Expenditure
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
INCOME					
Municipal Contributions—					
Hobart	536	710	735	787	788
Glenorchy	393	496	486	521	504
Clarence	448	555	524	553	517
Kingborough	76	94	90	97	98
Special Consumers	221	256	315	341	352
Direct Earnings, Southern Regional Scheme	173	194	232	255	279
Other Revenue	8	12	23	r 45	82
Total	1,855	2,316	2,406	r 2,599	2,620
EXPENDITURE					
Reimbursement of Working Expenses—					
Hobart	314	313	327	340	372
Glenorchy	216	217	238	247	267
Clarence	130	133	137	144	144
Kingborough	37	38	43	45	46
Bulk Supply, Operation Costs	268	329	322	340	463
Administrative Expenses	34	52	54	74	86
Interest	666	801	928	1,013	1,161
Depreciation	186	220	250	r 287	323
Investigation Expenses Written-Off .. .. .	..	..	39	..	..
Total	1,850	2,101	2,339	r 2,490	2,862

The preceding table excludes capital contributions, these are shown in the next table:

Metropolitan Water Board: Contributions to Southern Local Government Authorities
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Hobart—					
Construction and Improvement	636	299	161	333	317
Redemption and Conversion	30	29	116	104	43
Total	666	328	276	436	359
Glenorchy—					
Construction and Improvement	366	170	129	128	250
Redemption and Conversion	87	75	55	57	153
Total	453	245	184	186	403
Clarence—					
Construction and Improvement	72	82	30	40	107
Redemption and Conversion	31	41	55	64	45
Total	103	123	85	104	152
Kingborough—					
Construction and Improvement	12	52	19	92	125
Redemption and Conversion	11	11	12	12	12
Total	23	63	31	104	137
Total—					
Construction and Improvement	1,087	602	339	593	799
Redemption and Conversion	160	155	237	237	252
Grand Total	1,247	757	576	830	1,051

The Board makes capital contributions to the four local government authorities for: (i) construction and improvement of their water works; and (ii) redemption of their water debt raised prior to creation of the Board. The Board finances these capital contributions by: (i) borrowing from the State Government; (ii) borrowing from the public; and (iii) application of internal funds, e.g. depreciation funds. The cost of servicing loans, raised by the Board to meet local government requirements, is met from revenue contributions by the four local government authorities.

Capital Expenditure

The Board's total allocation of funds for capital purposes in 1971-72 was \$1,400,000 made up of \$500,000 from State Loan Funds and \$900,000 from semi-government loans. Of the allocation, \$400,000 was for augmentation of the Derwent Water Supply, \$600,000 for municipal reticulation systems and \$111,000 for the construction of Rokeby Reservoir which was commenced during 1970-71 for the Housing Department sub-division.

In the 10 years of the Board's operations, the annual loan expenditure has averaged slightly more than \$2m. During this time the Board has completed such major projects as the Derwent Water Supply (\$6.2m); Sorell-Clarence extension (\$1.5m); Kingborough extension (\$0.6m); Risdon Brook Dam (\$2.9m) and made capital advances to the metropolitan municipalities for works under their control (\$7.1m) and loan conversions (\$2.0m).

Rivers and Water Supply Commission

Relations with Local Government Authorities

The Commission examines all proposed municipal water supply and sewerage schemes before construction commences to ensure that the schemes are economically sound. (Schemes proposed by the three cities (Hobart, Launceston and Glenorchy) are exempted from examination by the Commission.) If a scheme is considered to be beyond the financial resources of the local government authority and proposed rates meet or exceed the standards established by the Commission then it may recommend to the Minister, payment of a subsidy. At 1 July 1972 the annual standard charges were: (i) water supply schemes, \$33.00 per tenement and \$15.00 per vacant lot; and (ii) sewerage schemes, \$38.00 per tenement and \$16.00 per vacant lot. The Commission is also empowered to recommend subsidies for the purpose of assisting councils to pay for water supplied from the North Esk and Southern Regional Water Supply Schemes.

Regional Schemes

North Esk Regional Water Supply: The scheme, managed by the Commission, serves portions of the municipalities of Evandale, George Town, Lilydale, St Leonards and Westbury. In addition the scheme provides water for industrial purposes to Bell Bay. Total income from the scheme during 1971-72 was \$367,000 which included sale of water to: (i) municipalities, \$222,000 (ii) industrial users, \$115,000; and (iii) wayside consumers, \$8,000. Total expenditure for the year amounted to \$346,000. At 30 June 1972 capital cost of the scheme amounted to \$3.73m. During 1972-73 the Commission authorised its consulting engineers to prepare plans for a 6.5 million gallons per day water treatment plant. It is expected to commence construction early in 1973-74 with completion planned for December 1974.

West Tamar Water Supply: This scheme was partially completed by the Beaconsfield Municipality but from 1 July 1960 the Rivers and Water Supply Commission assumed responsibility for operating the scheme. However, the local government authority retains primary responsibility for reticulation and sale of water to consumers, except for certain industrial users. The level of charges is determined by the Commission; Beaconsfield Municipality collects revenue on behalf of the Commission and is reimbursed by the Commission for expenditure incurred. The scheme serves the west shore of the Tamar located in the Beaconsfield Municipality. Total income from the scheme during 1971-72 was \$163,000 while expenses of the scheme were \$267,000. Capital cost of the scheme to 30 June 1972 was \$2.42m.

Prosser River Scheme

This scheme was originally designed to supply water to a sodium alginate industry at Louisville, on the east coast near Orford, and to supplement the water supply for the town of Orford in the Spring Bay Municipality. On 3 November 1970 an agreement was made with Tasmanian Pulp and Forest Holdings to supply water to the Triabunna woodchip plant. Water for this purpose is obtained from a dam built on the Prosser River. Income for the year 1971-72 was \$38,000 while expenses of the scheme amounted to \$38,000. Capital cost of the Prosser River Scheme to 30 June 1972 amounted to \$430,000.

Municipal Waterworks and Sewerage Schemes

At 30 June 1971 water was connected to approximately 103,000 properties which consumed about 16,000m gallons during the year. In 1970-71 the receipts of all local government authorities for water supply totalled \$6.06m, their loan debt for construction purposes at 30 June 1971 standing at \$15.24m.

At 30 June 1971 sewerage services were connected to approximately 81,000 tenements of which about 57 per cent were connected to sewage treatment plants. In 1970-71 the receipts of all local government authorities for sewerage services were \$3.05m, their loan debt for construction standing at \$22.57m.

Chapter 5

PUBLIC FINANCE

COMMONWEALTH AND STATE

Change in Relationship Since 1901

Prior to the establishment of the Commonwealth in 1901, the individual States exercised complete autonomy with respect to their raising of revenue and the manner in which this was spent. Due to developments since Federation, the States now have only limited ability to raise the money required for revenue and capital purposes. The Commonwealth Government has become almost the exclusive channel for loan funds for State purposes, and supplements State revenue by massive grants from its own funds. The emergence of the Commonwealth as the dominating influence in the financial transactions of the State Governments can be traced to three events:

- (i) under the Constitution the States surrendered the right to levy customs and excise duties, which passed exclusively to the Commonwealth;
- (ii) under the *Financial Agreement Act* 1927, the Commonwealth became the borrowing agent for the States; and
- (iii) during World War II, under the Uniform Tax Scheme, the Commonwealth became the sole authority levying taxes upon the income of persons and companies, a war-time measure which has continued to this day.

The result of these changed relationships can be summarised as follows: (i) the Commonwealth Government, as the channel for loan funds for State purposes, exercises a substantial degree of control over public investment; (ii) to carry out functions for which their revenue is entirely inadequate, the States have become heavily dependent on the Commonwealth Government for general and specific grants. The Commonwealth Government is therefore placed in a position to exercise a substantial degree of control over the ordinary public expenditure of the States.

Principal Activities of the States

The Federal Constitution lists the matters over which the Commonwealth Parliament has power to legislate. Some of these powers are given exclusively to the Commonwealth (e.g. defence, customs and excise) but, in many matters, the Commonwealth and State Governments have concurrent powers; Commonwealth law prevailing where there is conflict. Matters other than those listed in the Constitution remain the concern of the States. Principal government activity at State level embraces education, health and welfare services, the development of internal resources, land settlement, soil conservation, maintenance of law and order and the provision of public utility services such as roads, electricity, public transport and water supply. Such activities are undertaken either by State Departments or by statutory and local government bodies created under State legislation. The most obvious form of revenue for the discharge of these functions is State taxation but the Commonwealth exercises a practical monopoly over the more lucrative tax sources (e.g. customs and excise, income tax, sales tax). A responsibility therefore rests on the Commonwealth to supplement State revenues.

Commonwealth Payments To or For Tasmania

Summary of Commonwealth Payments

In the following sections, the main forms of Commonwealth assistance are described; the following table shows the total annual payments to Tasmania from the Commonwealth Consolidated Revenue Fund:

Commonwealth Consolidated Revenue Fund: Payments To or For Tasmania
(\$'000)

Item	1969-70	1970-71	1971-72
Financial Assistance Grants	48,514	67,088	71,673
Special Grants (Section 96)	21,900	13,680	7,800
Financial Agreement Payments—			
Interest on State Debts	534	534	534
Sinking Fund on State Debts	1,598	1,694	1,825
Debt Charges Assistance .. .. .	..	795	1,590
Universities, Capital and Maintenance	2,261	2,247	2,770
Colleges of Advanced Education	1,074	1,268	2,272
Teachers Colleges	250	100	650
Pre-School Teachers Colleges	120	..	..
School Libraries	140	480	366
Technical Training	376	325	380
Science Laboratories (Schools)	256	563	415
Independent Schools	286	556	660
Government Schools, Capital .. .. .	..	..	470
Research Grants	182	202	131
Tuberculosis Hospitals, Capital and Maintenance	367	347	337
Blood Transfusion Services	21	24	30
Mental Health Institutions	108	224	185
Assistance for Deserted Wives	77	188	201
Dwellings for Aged Pensioners	100	158	232
Aboriginal Advancement	39	54	45
Commonwealth Aid for Roads	9,100	10,230	10,820
Farming Extension Services	226	314	440
Softwood Forestry	400	700	62
Hydro-Electricity	9,700	3,211	2,500
Railway Projects .. .. .	..	..	3,094
Water Resources Investigation	68	64	71
Natural Disaster Payments	73	284	143
Cressy-Longford Irrigation .. .. .	..	200	449
Non-metropolitan Unemployment Relief .. .. .	..	..	1,485
Miscellaneous	70	114	359
Total (a)	97,840	105,644	111,989

(a) This total cannot be identified *as such* in State accounts since part is taken into Consolidated Revenue, part into Loan Fund, and the balance into Trust and Special Funds.

Financial Assistance Grants

The (Federal) *States Grants (Income Tax Reimbursement) Act* 1942 provided for grants to the States as compensation for vacating the field of income tax. Various formulae have been employed to calculate each State's grant, the principles of the present system dating from 1959. These involved annually increasing the grant by taking account of three factors: (i) increased State population; (ii) increased average wages; and (iii) a 'betterment' multiplier. This 'betterment' multiplier was a constant 1.2 per cent from 1965-66 to 1970-71; for 1971-72, it was increased to 1.8 per cent.

The calculation of the Tasmanian grant for 1971-72 illustrates the application of the formula: (i) formula grant (1970-71) \$65,731,055; (ii) percentage increase in Tasmanian population in year 1971, 0.7048; (iii) percentage increase in wages per Australian employed (1971-72 over 1970-71) 11.3084893; (iv) betterment factor, 1.8 per cent.

Calculated grant (1971-72) =

$$\begin{aligned} & \$65,731,055 \times 1.007048 \times 1.113084893 \times 1.018 \\ & = \$75,006,143 \end{aligned}$$

The Commonwealth added to the calculated grant two special assistance grants totalling \$3,432,059; it then deducted \$6,765,000 to off-set Tasmania's revenue gain arising from the transfer of pay-roll tax to the States. The resultant total Financial Assistance Grant for 1971-72 was \$71,673,202.

The following shows the amounts received as Financial Assistance Grants from 1954-55:

Financial Assistance Grants (a): Receipts by Tasmania
(\$)

Year	Amount	Year	Amount	Year	Amount
1954-55	10,152,662	1960-61	23,960,360	1966-67 (b) ..	34,772,852
1955-56	10,704,450	1961-62	25,671,238	1967-68	37,968,098
1956-57	12,048,712	1962-63	26,616,104	1968-69 (b) ..	42,208,983
1957-58	13,435,384	1963-64	27,626,296	1969-70 (b) ..	48,514,433
1958-59	14,539,428	1964-65	29,297,286	1970-71 (b) ..	67,087,841
1959-60	21,826,000	1965-66	32,130,632	1971-72 (b) ..	71,673,202

(a) Referred to as Tax Reimbursement Grants from 1942-43 to 1958-59. (Formula grants plus supplementary grants.)

(b) Calculated formula grant and other adjustments (e.g. special supplements).

Special Grants (Section 96 of the Constitution)

Section 96 of the Constitution reads: 'During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit'.

The Commonwealth Grants Commission was established in 1933 and consists of three members on a part-time basis assisted by a full-time staff. In its third report (1936) it fixed upon the principle of financial need, which was expressed in the following terms: 'Special grants are justified when a State through financial stress from any cause is unable efficiently to discharge its functions as a member of the federation and should be determined by the amount of help found necessary to make it possible for that State by reasonable effort to function at a standard not appreciably below that of other States'. In arriving at its recommendations, the Commission each year makes a detailed comparison of the budget results of the claimant States with those of the non-claimant States.

Prior to the passage of the (Federal) *States Grants Act* 1959, the claimant States had been Tasmania, W.A. and S.A. The new formula evolved under the *States Grants Act* 1959 had been devised partly in reaction to a claim by Victoria and Queensland to be also considered as claimant States; in effect, the new scale of increased grants under this legislation resulted in the number of claimant States falling to two, W.A. and Tasmania. The Grants Commission could then have used the accounts of the four non-claimant States to reach a basis for comparison; it finally decided to adopt a two-State standard, based on the budgets of N.S.W. and Victoria. Recent developments have included: (i) the withdrawal of W.A. as a claimant State from 1968-69; (ii) the acceptance of S.A. as a claimant State from 1970-71; (iii) the acceptance of Queensland as a claimant State from 1971-72. In effect the pre-1959 situation with three claimant States has been restored with Queensland replacing W.A.

Since 1949-50, the Special Grant has been in two parts. One part is an advance to meet the estimated financial needs of the State during the current financial year and the other part is an adjustment (positive or negative), the magnitude of which depends on whether the advance made two years earlier proved greater or smaller than the amount of financial assistance deemed justified by the Grants Commission. The Special Grant for 1972-73 was \$10m subject to a negative adjustment of \$2.4m on 1970-71 accounts.

The negative adjustment applied in 1972-73 meant that the Grants Commission considered its 1970-71 advance grant too high in the light of its critical examination, not only of the 1970-71 accounts of Tasmania, but also those of the standard States (N.S.W. and Victoria). The accounting principles followed by the Grants Commission are necessarily complicated and can be examined in the Annual Reports of that authority. It is sufficient to say that the existence of the Special Grant has exercised considerable influence on the financial policy of successive Tasmanian Governments. Two principles employed by the Grants Commission will serve to illustrate the nature of this influence:

- (i) if State taxation in a claimant State is below average rates and average exemption scales in the standard States, an unfavourable adjustment will result; and
- (ii) if State social service expenditure in a claimant State is above comparable per capita expenditure in the standard States (after allowing for certain difficulties encountered in the claimant State), an unfavourable adjustment will result.

Claimant States must endeavour to raise revenue from taxation at least at the rates and exemption scales adopted by the standard States and must not exceed the per capita expenditure of the standard States in certain fields. Departure from these standards can result in adverse Grant adjustments.

The following table shows Tasmanian Special Grant receipts:

Special Grant (Section 96): Receipts by Tasmania
(*\$'000*)

Year	Advance Grant	Adjustment Assessed (a)	Adjustment Applied (b)	Actual Receipt (c)
1961-62	8,200	+ 556	+1,950	10,150
1962-63	9,800	+ 982	+ 282	10,082
1963-64	10,200	+1,332	+ 556	10,756
1964-65	13,618	+1,166	+ 982	14,600
1965-66	16,400	+ 889	+1,332	17,732
1966-67	19,500	-1,190	+1,166	20,666
1967-68	19,000	- 100	+ 889	19,889
1968-69	18,000	+1,680	-1,190	16,810
1969-70	22,000	-3,200	- 100	21,900
1970-71	(d) 12,000	-2,400	+1,680	(d) 13,680
1971-72	11,000		-3,200	7,800
1972-73	10,000		-2,400	7,600

(a) Assessment is shown against the year for which accounts have been examined by the Grants Commission, although its effect does not become apparent until two years later.

(b) The two-year delay in application is due to the Grants Commission's obligation to analyse the accounts of claimant and non-claimant States before announcing the adjustments.

(c) Advance grant plus or minus the adjustment applied.

(d) In 1970-71 the Commonwealth agreed to transfer \$10m from the Special Grant to the Financial Assistance Grant; hence the apparent reduction.

The treatment of Special Grant adjustments in Tasmanian accounts is as follows:

- (i) If a favourable adjustment is made, an equal amount is paid into a suspense account (Accumulated Revenue Account) and the Consolidated Revenue Fund records only the advance grant.
- (ii) If an unfavourable adjustment is made, an equal amount is transferred from the suspense account (Accumulated Revenue Account) to the Consolidated Revenue Fund. Thus the Consolidated Revenue Fund again shows as a receipt the amount of the advance grant and not, as might be expected, the advance grant *less* the unfavourable adjustment.

In effect, the State Treasury carries forward, in the Accumulated Revenue Account, unadjusted budget surpluses and deficits until the Grants Commission announces a favourable or unfavourable adjustment; action can then be taken to charge the net adjusted deficit against the Loan Fund.

Payments Under the Financial Agreement (1927)

Under the Financial Agreement, which was entered into by the Commonwealth and the States in 1927, the Commonwealth contributes towards interest and sinking fund payments in respect of State debts existing at 30 June 1927, and towards sinking fund payments in respect of State debts incurred after that date for purposes other than the funding of revenue deficits.

The Commonwealth contribution towards payment of interest on the Tasmanian State debt is a constant annual sum of \$533,718 and will be continued until 1985.

The sinking fund contributions made by the Commonwealth under the Agreement in respect of State debts vary according to the date and nature of the borrowings. On State debts existing at 30 June 1927 the Commonwealth is making sinking fund contributions at the rate of 0.125 per cent a year until 1985 and in respect of cash loans raised for the States since that date, the Commonwealth makes sinking fund payments for 53 years at the annual rate of 0.25 per cent. Each State is obliged to make sinking fund payments for corresponding periods at the rate of 0.25 per cent per annum regardless of the date on which the debt was incurred. The only exception is in relation to debt incurred for the purpose of funding revenue deficits. In these instances, the Commonwealth makes no sinking fund contributions and the States are obliged to make annual contributions to the sinking fund of not less than four per cent. However, in respect of Treasury Bills issued to cover States' revenue deficits accruing between July 1927 and June 1935, special arrangements were made under which the Commonwealth contributes 0.25 per cent per annum on the amount outstanding until June 1983.

Recent Commonwealth sinking fund contributions in respect of the Tasmanian public debt are shown in the following table:

Commonwealth Contributions to National Debt Sinking Fund: Tasmanian Debt
(\$'000)

Year	Amount	Year	Amount
1962-63	972	1967-68	1,398
1963-64	1,062	1968-69	1,485
1964-65	1,129	1969-70	1,598
1965-66	1,212	1970-71	1,694
1966-67	1,293	1971-72	1,825

The acceptance of some Commonwealth liability for interest and sinking fund payments on State debts was only one part of a more extensive agreement setting up an Australian Loan Council and a National Debt Sinking Fund. The raising of loan money for the States under the Agreement is described later in this Chapter.

New Assistance for Debt Charges

At the 1970 February Premiers' Conference, the Commonwealth announced that it was prepared to take over State debt totalling \$1,000m during the five-year period 1970-71 to 1974-75. However, this would have necessitated amendments to the *Financial Agreement Act 1927* and caused considerable delay. The Commonwealth then proposed an alternative which involved grants to the States equal to interest on specific parcels of State debt. The distribution between the States is to be in proportion to Commonwealth Securities on issue on behalf of each State at 30 June 1970. Tasmania's estimated receipts under this scheme are (in \$m): 1970-71, 0.8; 1971-72, 1.6; 1972-73, 2.4; 1973-74, 3.2; and 1974-75, 3.9. It is intended to amend the *Financial Agreement Act 1927* by 30 June 1975 and formally transfer the \$1,000m of State debt to the Commonwealth.

Grants for Capital Purposes

To assist the States in meeting their capital works programmes during the period 1970-71 to 1974-75 the Commonwealth is providing annual grants for financing non-reproductive capital works. In 1971-72 the States' approved works and housing programmes amounted to \$892m and the grant to the States was \$219m. The grant increases annually in proportion to the growth of the States' approved capital works programmes. In addition, the proportion of the States' works programmes met by the grants increased from 24.4 per cent in 1971-72 to 25.3 per cent in 1972-73.

Distribution of the grants is determined by agreement between States or decided by the Commonwealth if the States are unable to reach agreement. Tasmania's share of the 1971-72 grant was \$15.31m which was credited to the State Loan Fund. During 1972-73 the State Government expected to receive \$17.37m in grants for capital works. This compares with an estimated \$51.25m to be borrowed for capital works (including housing) by Tasmania.

The provision of these grants reduces the amount which the State needs to borrow in order to carry out its capital works programme. The result of this decrease in the amount borrowed means that the burden of debt charges (interest payments and sinking fund contributions) on the Consolidated Revenue Fund is eased.

Commonwealth Aid for Roads

The Federal *Main Roads Development Act* 1923 provided for annual Commonwealth contributions to the States, the basis of distribution being a formula weighted 40 per cent according to State area and 60 per cent according to State population. This basis was explicitly expressed in the *Federal Aid Roads Act* 1926 and continued to operate until 1959-60.

A new formula for distribution was embodied in the *Commonwealth Aid Roads Act* 1959 when the Commonwealth undertook to provide a total sum of \$500m over a five-year period. Of this amount, \$440m represented basic grants, and the remaining sum of up to \$60m was, subject to certain annual limits, payable to the States on the basis of \$1 for each \$1 allocated by the State Governments from their own resources for expenditure on roads over and above the amounts allocated by them for roads expenditure in 1958-59.

The amounts being made available by the Commonwealth were distributed between the States in each year in the proportion of five per cent of the total for Tasmania, and the balance shared between the other five States on the basis of one-third according to Census population, one-third according to area and one-third according to vehicles registered at 31 December preceding the year concerned. It will be observed that Tasmania, with less than one per cent of the area of the Commonwealth, was specifically exempted from the operation of the formula applied to the other States.

The *Commonwealth Aid Roads Act* 1964 contained provision for a second five-year plan but the total distribution over this period was raised to an amount of \$750m. A third five-year plan, based upon a distribution of \$1,252m is embodied in the *Commonwealth Aid Roads Act* 1969. Of this amount \$1,200m is divided between the States according to a new formula which includes characteristics of the old formula and a scheduling formula suggested in a Bureau of Roads Report. The remaining \$52m is distributed thus: W.A., \$40.8m; S.A. \$9m; and Tasmania, \$2.25m. Tasmania's total receipts under the new five-year plan will be \$56.25m. The 1969 Act specifies that 50.06 per cent of the Commonwealth grant to a State is to be spent on urban roads; 15.56 per cent on main trunk roads; 32.88 per cent on other rural roads; and 1.5 per cent on planning and research. To qualify for a specified part of the total grant, each State, during the five-year period, is required to increase its expenditure on the roads from its own resources above a base-year level at the same rate as the number of motor vehicles on register in the State increases.

The method of allocating road grants, outlined above, became operative from 1 July 1969.

Details of Tasmanian receipts of Commonwealth contributions in respect of road expenditure are shown in the following table:

**Commonwealth Aid for Roads: Receipts by Tasmania
(\$'000)**

Year	Amount	Year	Amount	Year	Amount
1954-55	2,334	1960-61	4,600	1966-67	7,500
1955-56	2,652	1961-62	5,000	1967-68	8,000
1956-57	3,126	1962-63	5,400	1968-69	8,500
1957-58	3,466	1963-64	5,800	1969-70	9,100
1958-59	3,624	1964-65	6,500	1970-71	10,230
1959-60	(a) 4,366	1965-66	7,000	1971-72	10,820

(a) Payment under the *Commonwealth Aid Roads Act* 1959 was \$4.2m; the balance represents a final adjustment of Commonwealth commitments under previous legislation.

State Revenue Raising Difficulties

Introduction

The financial relationships described in the opening section of this Chapter have at times caused difficulties for individual States, especially when there has been an urgent need to increase revenue. In these circumstances, the complaint has been that the Commonwealth exercises a practical monopoly over the best 'growth' taxes and that, because of this, the States lack budget flexibility.

This section in the 1973 Year Book described: (i) a legal challenge to uniform income tax; (ii) the imposition and abandonment of States' receipts taxes; (iii) an attempt by a State to avoid paying Commonwealth pay-roll tax. The following text describes: (i) the transfer of pay-roll tax from the Commonwealth to the States; (ii) the imposition by the Tasmanian Government of a tobacco tax, held by its opponents to be an illegal sales tax.

Growth Tax for the States

Increasing budgetary difficulties in recent years led to pressure from the State Premiers for access to a growth tax, preferably re-entry into the field of income taxation. The initial attempts involved the levy of a receipts duty tax. At the 1971 June Premiers' Conference the Prime Minister refused to give the States access to the field of income taxation; however, he did offer to hand over pay-roll tax to the States. The proposal put forward was that the States would receive receipts from pay-roll tax but the amounts received would be deducted from the States' financial assistance grants. The Premiers unanimously rejected this proposal. After discussion the State Premiers agreed to take over pay-roll tax and have a matching reduction in the formula base for their financial assistance grants, subject to the following conditions:

- (i) The Commonwealth would give the States a non-recurring special financial assistance grant totalling \$40m during 1971-72; Tasmania's share was \$1.9m.
- (ii) The States, by a variation of the formula grants in the period 1971-72 to 1974-75, were to receive approximately an extra \$100m.
- (iii) The Commonwealth agreed to bear the full cost resulting from the exemption from pay-roll tax of certain areas of local government.

The State Premiers decided to raise the pay-roll tax rate from 2½ per cent to 3½ per cent. The expected receipts from pay-roll tax in Tasmania during 1972-73 are \$11.75m.

Tobacco Tax

In the September 1972 Budget the Premier and Treasurer, the Hon. E. E. Reece, announced his intention to: (i) impose a tax on the consumption of tobacco; and (ii) license tobacco retailers and vending machines. Despite an adverse reaction from the Federal Treasurer the State Government decided to proceed with the tobacco tax proposal and legislation was introduced into the House of Assembly. In November 1972 the *Tobacco Act* received the Governor's assent.

Tobacco Act 1972: The Act, which became effective on 1 January 1973, imposed a tax on the consumption (by smoking or chewing) of tobacco and required the licensing of tobacco retailers and vending machines. The consumption tax was set at $7\frac{1}{2}$ per cent of the value of the tobacco consumed. (The value on which the tax was based was the price at which the tobacco, together with its container, was ordinarily sold). Licence fees for retailers were based on the value of tobacco stocks while vending machine fees were set according to the capacity of the machine. The consumption tax, licences and fees collected under the Act were to be paid into the Consolidated Revenue Fund.

Challenge to the Act: The Retail Tobacco Sellers' Association decided to challenge the consumption tax on the grounds that it was in fact a sales tax and therefore constitutionally invalid. The challenge was heard by the High Court. In March the Commonwealth Government announced that it would seek leave to intervene in the case and that it would oppose the tax.

In May 1973 the High Court decided to reserve its decision on the question of validity of the tax.

Loan Council (Financial Agreement)

The original Financial Agreement was made on 12 December 1927, but Tasmania did not become a party to it until 1 July 1928. The basic intention of the agreement was a co-ordinated approach to the loan market, the establishment of sound sinking fund arrangements and the sharing of State debt charges by the Commonwealth. The main provisions are summarised as follows:

- (i) The Commonwealth assumed certain liabilities in respect of State debts (see previous section on interest and sinking fund payments made by the Commonwealth in respect of Tasmanian State Debt—'*Payments Under the Financial Agreement 1927*').
- (ii) The Australian Loan Council was set up to co-ordinate the public borrowings of the Commonwealth and the States. It consists of the Prime Minister (or his nominee) as Chairman, and the State Premiers (or their nominees). Each financial year the Commonwealth and the States submit programmes to the Loan Council setting out the amounts they desire to raise by loan during the next year. Revenue deficits to be funded are included in the borrowing programmes but borrowing by the Commonwealth for defence purposes is excluded from the terms of the agreement.

If the Loan Council decides that the total amount of the loan programmes for the year cannot be borrowed at reasonable rates and conditions, it then decides the amount which shall be borrowed and may, by unanimous decision, allocate that amount between the Commonwealth and the States. In default of a unanimous decision, the Commonwealth is entitled to one-fifth of the total amount to be borrowed and each State to a proportion of the remainder equal to the ratio of its net loan expenditure in the preceding five years to the net loan expenditure of all States during the same period.

Subject to the decisions of the Loan Council, the Commonwealth arranges all borrowings, including those for conversions, renewals and redemptions. However, the Commonwealth or a State may borrow for 'temporary purposes' by way of overdraft or fixed deposit, subject to limits fixed by the Loan Council. In addition, the Commonwealth may borrow within the Commonwealth, or a State within its own territory, from authorities, bodies, institutions, or from the public by counter sales of securities, subject to Loan Council approval. Commonwealth securities are issued for money borrowed in this way and amounts so borrowed are treated as part of the borrowing programme for the year.

- (iii) The Agreement involved setting up a National Debt Commission to administer one consolidated sinking fund in respect of the debt of the Commonwealth and the States. Sinking fund moneys are used to redeem unconverted securities at maturity and to re-purchase securities on the stock market.

- (iv) It was realised at the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of borrowings of large amounts by semi-government authorities (such loan raisings do not form part of State or Commonwealth debt and therefore are not within the scope of the original agreement). A set of rules evolved in 1936 is regarded as the 'Gentlemen's Agreement' and makes provision for the submission to the Council of annual loan programmes in respect of larger semi-government and local government authorities (in conjunction with the loan programmes of the governments concerned) and for the fixing of the terms of individual loans coming within the scope of the annual programme. From 1972-73 larger authorities are those semi-government and local government authorities borrowing more than \$400,000 in a year. (For 1972-73 borrowings approved by the Loan Council for Tasmanian semi-government and local government authorities amounted to \$14,363,000.)

It should be emphasised that the Australian Loan Council does not itself raise money for Tasmanian semi-government and local government authorities; its concern is to assess the total impact of government borrowing for the year and then to fix ceilings for semi-government and local government authorities in the interests of a co-ordinated programme.

Money made available from the Commonwealth Loan Fund to the State of Tasmania is now recorded in the State Loan Fund only. Prior to 1971-72, allocations under the Commonwealth State Housing Agreement were recorded in the Trust and Special Funds. With the cessation of the Agreements on 30 June 1971, separate allocations are no longer approved for State housing programmes.

The following table shows Loan Council borrowings undertaken on behalf of the State of Tasmania to finance new capital works (and housing from 1971-72):

Tasmania: New Cash Borrowings Authorised by Australian Loan Council (a)
(\$'000)

Year	Amount	Year	Amount	Year	Amount
1954-55	25,920	1960-61	28,388	1966-67	37,580
1955-56	26,800	1961-62	28,996	1967-68	40,610
1956-57	22,800	1962-63	30,708	1968-69	42,120
1957-58	24,200	1963-64	32,020	1969-70	45,370
1958-59	25,180	1964-65	34,136	1970-71	(b) 34,570
1959-60	27,080	1965-66	34,834	1971-72	(c) 47,020

(a) For State works programmes; amounts credited to State Loan Fund.

(b) Commencing in 1970-71 the Commonwealth has provided a capital grant to replace some amounts which would otherwise have been obtained as loan borrowings; hence the reduced amount in 1970-71.

(c) The increased new cash borrowings for 1971-72 include an allocation for State housing for the first time (see next table for pre-1971-72 practice).

For years prior to 1971-72 the previous table excluded allocations under the Commonwealth and State Housing Agreements, which were also part of the Loan Council's programme. The following table shows allocations to Tasmania for housing purposes up to and including 1970-71.

Tasmania: Allocations For Housing
(\$'000)

Year	Amount	Year	Amount	Year	Amount
1956-57	4,000	1962-63	5,200	1967-68	6,700
1957-58	4,000	1963-64	6,000	1968-69	7,500
1958-59	4,400	1964-65	6,400	1969-70	7,600
1959-60	3,900	1965-66	7,448	1970-71	8,700
1960-61	4,000	1966-67	7,500	1971-72	(a)
1961-62	5,856				

(a) Allocations (\$8.3m) included with other borrowings in the previous table.

STATE FINANCIAL TRANSACTIONS

Tasmanian Public Account

The State Public Account includes the Consolidated Revenue Fund, the Trust and Special Funds, and the Loan Fund. Ordinary revenues from taxation and other sources are paid into the Consolidated Revenue Fund from which the main expenditures are for public debt charges, education, development of State resources, health and hospitals, general administration, subsidies to State business undertakings, law and order, and certain welfare activities. The Trust and Special Funds cover special transactions outside the ordinary operations of departmental expenditure, such as funds from the Commonwealth for specific purposes and moneys held for expenditure by the State at some future time. The Loan Fund receives its funds from public borrowings and grants, and the main expenditure is on State public works and on advances to State business undertakings.

A summary of transactions on the Tasmanian Public Account for a three-year period is given in the following table:

Public Account: Summary of Transactions
(£'000)

Particulars	1969-70	1970-71	1971-72
Cash and Investments at Beginning of Year	5,261	9,972	11,934
Receipts—			
Consolidated Revenue Fund	123,819	138,229	157,782
Special Grant Adjustment	—100	1,680	—3,200
Borrowings for New Capital Purposes	45,370	34,576	47,028
Other Loan Fund Receipts	4,342	18,666	22,079
Net Increase, Trust and Special Funds	1,597	—1,085	744
Total	175,027	192,066	224,434
Expenditure—			
Consolidated Revenue Fund	121,004	138,207	160,237
Loan Fund, Public Works and Purposes	49,312	51,891	68,538
Discount .. ..	..	6	8
Total	170,316	190,103	228,783
Cash and Investments at End of Year	9,972	11,934	7,585

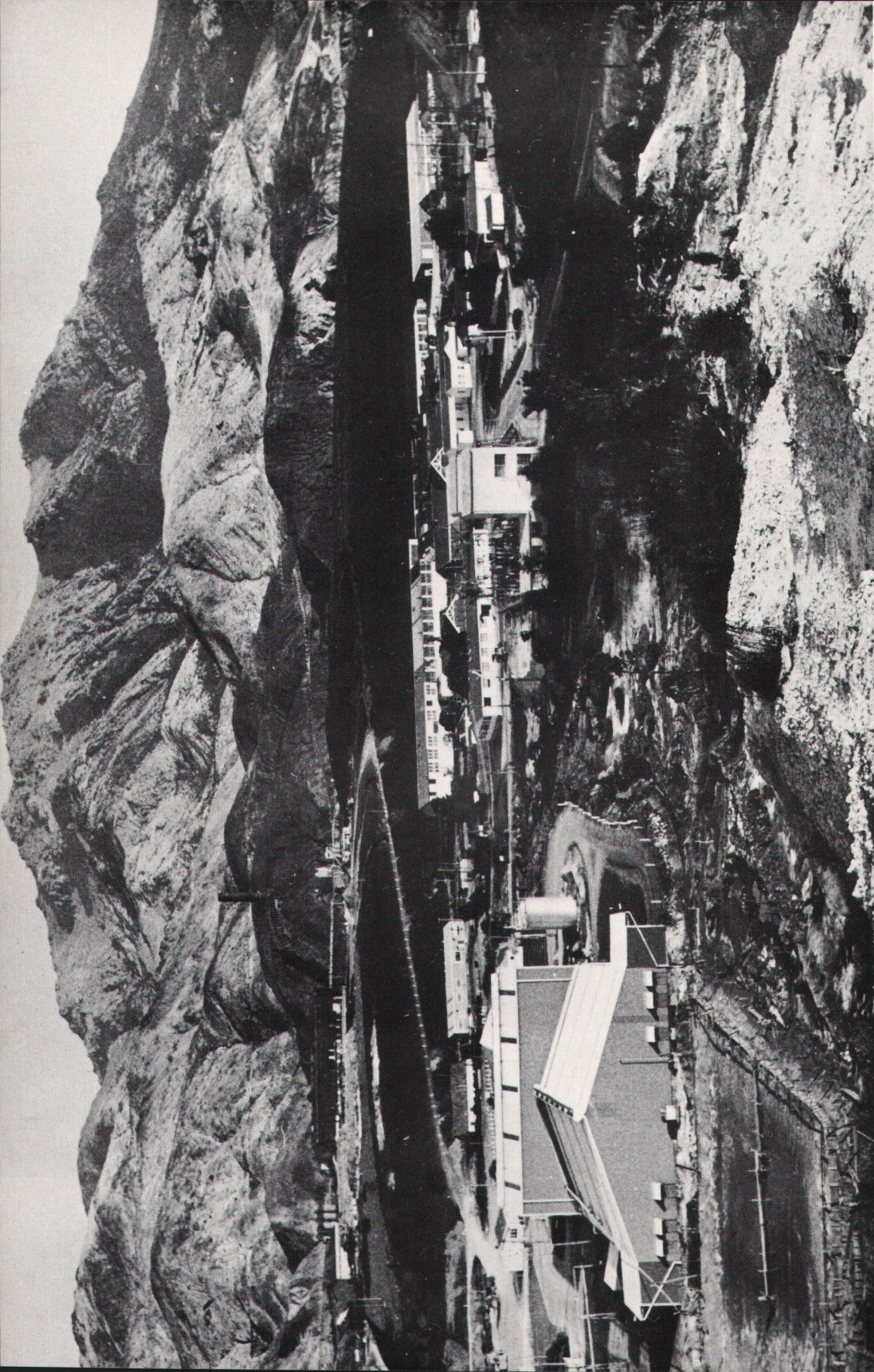
The State Public Account is a complete record of the Government's operation of three specific funds, i.e. Consolidated Revenue, the Trust and Special Funds, and the Loan Fund. It is by no means a complete record of government activity, since statutory authorities and semi-government authorities such as the Hydro-Electric Commission, Transport Commission and Agricultural Bank carry on financial operations which are not recorded in the State Public Account. In a later section of this Chapter, there appears the heading '*Exclusions from Consolidated Revenue*' and this lists the relationship between the finances of the principal authorities and the Consolidated Revenue Fund; the general principle is that gross receipts and expenditure of the authorities are excluded from the Consolidated Revenue Fund.

In the following table are shown the balances credited to each fund constituting the Public Account and the form in which the balances are held:



Logging, Florentine Valley

[Dept of Film Production]



Mt Lyell Mining and Railway Co., concentrating plant and offices. Mt Owen in background

[Dept of Film Production]

Public Account: Summary of Balances at 30 June
(\$'000)

Year	Balance				Location			
	Accumulated Revenue Account	Loan Fund	Trust and Special Funds	Total	Cash in Treasury or Bank	Advanced to Departments	Govt and Other Securities (a)	Total
1968	-2,423	1,285	7,085	5,947	4,602	763	582	5,947
1969	-5,545	3,354	7,452	5,261	3,831	768	662	5,261
1970	-2,830	3,754	9,048	9,972	3,257	773	5,942	9,972
1971	-1,128	5,099	7,963	11,934	3,541	993	7,400	11,934
1972	-2,433	1,310	8,707	7,585	5,427	890	1,268	7,585

(a) Includes fixed deposits.

In the previous table, 'Accumulated Revenue Account' is a suspense account recording accumulated surpluses and deficits in the Consolidated Revenue Fund, and also the funding of deficits. Details of the account are as follows:

Accumulated Revenue Account: Summary of Transactions
(\$'000)

Year	Opening Balance	Transactions			Closing Balance
		Budget Result, Consolidated Revenue	Special Grant Adjustment (a)	Deficits Charged to Loan Fund	
1967-68	-2,593	-1,851	+ 889	+1,132	-2,423
1968-69	-2,423	-3,695	-1,190	+1,762	-5,545
1969-70	-5,545	+2,815	- 100	..	-2,830
1970-71	-2,830	+ 22	+1,680	..	-1,128
1971-72	-1,128	-2,455	-3,200	+4,350	-2,433

(a) It is Tasmanian Treasury practice to record Special Grant adjustments in the Accumulated Revenue Account and to include, in published Consolidated Revenue receipts, only the advance grant as determined by the Commonwealth Grants Commission.

In the following section dealing with Consolidated Revenue, Treasury practice of eliminating Special Grant adjustments from Consolidated Revenue total receipts has been followed.

Consolidated Revenue Fund

General

The financial transactions of the State of Tasmania are recorded under: (i) Consolidated Revenue; (ii) Trust Funds; and (iii) Loan Fund.

Payments from Consolidated Revenue are made only on the basis of authority found in: (i) the annual Appropriation Act of the Parliament; (ii) Acts of the Parliament made in previous years and under which certain annual payments are classified as 'reserved by law'; and (iii) the *Public Account Act 1957* (as amended in 1962) and the *Audit Act 1918*.

The third category of authority listed above is designed to give the Treasurer and the Government some flexibility in public expenditure since the Appropriation Act cannot be expected to anticipate, to the nearest dollar, the expenses that are likely to be incurred for each and every item. The relevant sections of the amended *Public Account Act* are 5A and 5B which provide that, in

relation to Consolidated Revenue, the Treasurer may authorise transfers between votes within certain sub-divisions of the appropriation and, on the authority of the Governor, supplement certain appropriations and provide funds to meet expenditure for which no other provision exists. Transfers, as described under 5A, are a matter for the Treasurer but additional expenditure, as described under 5B, needs ratification by Parliament before the close of the following financial year. Regulations 20 and 21 of the second schedule of the *Audit Act* provide for expenditure by the Treasurer to meet emergencies for which no vote exists; the Governor must first authorise such expenditure and the Auditor-General investigate the circumstances before payment can be made.

Exclusions from Consolidated Revenue

It should be observed that the Consolidated Revenue Fund does not include all revenue and expenditure in respect of activities undertaken or authorised by the State Government. Some moneys are paid directly into State Trust Funds; e.g. the Commonwealth Aid Roads Grant is paid into the State Highways Trust Fund and the various expenditures on roads, etc. are made directly from that Fund. The gross receipts and payments of a number of State business undertakings and State authorities are excluded from the Consolidated Revenue Fund, their relation to the Fund being as follows:

- (a) In Tasmania, the railways (in common with Government shipping services) are administered by the Transport Commission and, since 1939-40, only the *net* losses of this authority have been met from the Consolidated Revenue Fund. Annual payment of debt charges (interest and sinking fund contributions) on advances made by the Government is credited to the Consolidated Revenue Fund.
- (b) Omnibus services in Hobart, Launceston and Burnie are operated by the Metropolitan Transport Trust. The *net* annual loss of the authority is a charge against Consolidated Revenue. Annual payment of debt charges on Government advances is credited to the Fund.
- (c) The gross receipts and expenditure of the Hydro-Electric Commission are excluded from the Consolidated Revenue Fund to which is credited annual payment of debt charges by the Commission. Net profit or loss on the Commission's activities is carried forward in the authority's own suspense account; however, from 1971-72 the Commission has been required to pay an annual contribution to Consolidated Revenue. The amount to be credited is five per cent of the total revenue derived from retail sales of electricity in the preceding year. As the requirement did not commence until 14 October 1971, the contribution for 1971-72 was set at \$804,000, three quarters of the amount that would otherwise have been payable for the whole year.
- (d) Also excluded from the Consolidated Revenue Fund are the gross receipts and payments of: regional water schemes, Government Printing Office, Government Insurance Office, Public Trustee, State housing authorities, Closer Settlement, Rural Credits and other activities of the Agricultural Bank, etc. In accordance with various Acts, it is usual for the net profits or losses of the previous year to be paid to or from the Consolidated Revenue Fund for the current year. Debt charges on government money loaned to the authorities are paid to Consolidated Revenue.

Consolidated Revenue Fund—Summary

The following table shows the Consolidated Revenue and Expenditure of Tasmania, the surplus or deficit, and the aggregate deficit at the end of each year. It also calls attention to the Special Grant adjustments and shows how these Commonwealth payments modify the original budget result.

Consolidated Revenue Fund: Surpluses and Deficits
('\$000)

Year	Revenue			Expenditure	Budget Result		Aggregate Net Deficit at End of Year
	Before Adjustment	Special Grant Adjustment	After Adjustment		Before Adjustment	After Adjustment	
1961-62 ..	60,636	+ 556	61,192	61,352	— 716	— 160	11,492
1962-63 ..	63,036	+ 982	64,018	64,020	— 983	— 1	11,493
1963-64 ..	67,836	+1,332	69,167	69,020	—1,185	+ 147	11,346
1964-65 ..	74,846	+1,166	76,012	76,465	—1,618	— 452	11,799
1965-66 ..	83,564	+ 889	84,453	85,585	—2,021	—1,132	12,931
1966-67 ..	92,676	—1,190	91,486	93,248	— 572	—1,762	14,693
1967-68 ..	100,563	— 100	100,463	102,413	—1,851	—1,951	16,644
1968-69 ..	107,846	+1,680	109,526	111,540	—3,695	—2,015	18,659
1969-70 ..	123,819	—3,200	120,619	121,004	+2,815	—385	19,044
1970-71 ..	138,229	(a)	(a)	138,207	+ 22		19,021
1971-72 ..	157,782	(b)	(b)	160,237	—2,455		21,476

(a) Negative adjustment of \$2,400,000 will be applied in 1972-73.

(b) Adjustment not yet determined but will be taken into account in 1973-74.

Deficit Funding

In the previous table, the original budget result is treated as provisional because the Grants Commission's adjustment is used to amend the original surplus or deficit and also the aggregate deficit. The Tasmanian Government refrains from immediately charging revenue deficits against the Loan Fund since the precise amount of the final deficit is not known until the Commission's adjustment is taken into account two years later. While the aggregate of all deficits at 30 June 1972 was \$21,476,000, the sum of \$19,044,000 has been charged against the loan fund as 'revenue deficits funded': thus the unfunded aggregate deficit is only \$2,433,000 carried as a negative balance in the accumulated revenue account.

Consolidated Revenue Fund—Receipts

The following table shows Tasmanian Consolidated Revenue receipts for a three-year period:

Consolidated Revenue Fund: Receipts
('\$000)

Item	1969-70	1970-71	1971-72
Commonwealth Grants—			
Financial Agreement	534	534	534
Financial Assistance	48,504	(a) 67,088	71,673
Special	21,900	(a) 13,680	7,800
Debt Charges Assistance .. .. .	..	795	1,590
Unemployment Relief Grant .. .. .	..	..	1,485
Total	70,938	82,096	83,082
Debt Charge Recoveries (b)—			
Interest	19,732	21,770	24,536
Sinking Fund	2,476	2,625	2,895
Total	22,208	24,395	27,431

Consolidated Revenue Fund: Receipts—continued
(\\$'000)

Item	1969-70	1970-71	1971-72
State Taxation (c)	20,181	21,012	30,437
Lands and Forests—			
Forestry	1,653	1,815	2,127
Other Rents, Sales, etc.	339	372	411
Total	1,992	2,187	2,538
Semi-Government Authorities	310	401	216
Departmental Revenue, Fees, Rents, etc.	6,510	7,979	9,015
Victorian Lotteries Agreement	116	196	179
Commonwealth National Welfare Fund	1,463	1,643	1,683
Total Actual Receipts	123,719	139,909	154,582
Transfer, Accumulated Revenue Account (d)	+100	—1,680	+3,200
Grand Total	123,819	138,229	157,782

(a) In 1970-71, the Commonwealth agreed to transfer \$10m from the Special Grant to the Financial Assistance Grant.

(b) Mainly on advances made to semi-government authorities.

(c) See later section, 'State Taxation'.

(d) Special Grant adjustments: if sign positive, transfer is from suspense; if negative, transfer is to suspense.

The relative importance of the various components of the Consolidated Revenue Fund can be assessed by expressing them on a per capita basis using the State mean population for the relevant financial year.

Consolidated Revenue Fund: Receipts Per Head of Population
(\\$)

Item	1969-70	1970-71	1971-72
Commonwealth Grants	183.7	210.9	211.7
Debt Charge Recoveries	57.5	62.7	69.9
State Taxation	52.3	54.0	77.6
Lands and Forests	5.2	5.6	6.5
Semi-Government Authorities	0.8	1.0	0.6
Departmental Revenue, Fees, Rents, etc.	16.9	20.5	23.0
Victorian Lotteries Agreement	0.3	0.5	0.5
Commonwealth National Welfare Fund	3.8	4.2	4.3
Transfer, Accumulated Revenue Account	0.3	—4.3	8.2
Total	320.5	355.1	402.1

Debt Charge Recoveries

After Commonwealth Grants and State Taxation, debt charge recoveries is the next largest receipt item in Consolidated Revenue. The following table shows details of the payments of interest and sinking fund made by various authorities on advances which have been made to them by the State Government; since the advances have been made primarily from State loan borrowings, the Government has accepted an annual liability for debt charges (in respect of these authorities) approximately equal to the recoveries shown.

**Debt Charge Recoveries: Consolidated Revenue Fund
(\$'000)**

Source of Recovery	Interest			Sinking Fund Contributions		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
Transport Commission	1,100	1,304	1,481	169	163	172
Metropolitan Transport Trust	133	137	143	20	20	21
Hydro-Electric Commission	14,868	16,340	18,282	1,984	2,130	2,375
Regional Water Supplies	944	982	1,064	128	131	143
Government Printing Office	21	20	14	3	3	3
King Island Abattoirs	18	18	20	3	3	3
Tasmanian Grain Elevators	41	40	38	9	9	10
Aluminium Industry Agreement	178	153	131	..	..	..
Closer Settlement	79	83	89	..	..	..
Returned Soldiers Settlement	18	17	17	..	..	..
Homes Act Advances	51	44	39	..	..	..
Homes Construction (Housing Department)	791	773	808	157	163	166
State Advances, Primary Producers	218	229	271	..	..	..
Loans to Local Bodies	61	56	56	..	..	..
Tourist Accommodation Loans	86	101	119	..	..	..
Loans to Industry	412	336	373	..	..	..
Iron Ore (Savage River Agreement Act)	222	215	208	..	..	..
Forestry Department	350	392	451	..	..	..
Flood Relief Act	8	6	3	..	..	..
Other	135	527	928	2	2	2
Total	19,732	21,770	24,536	2,476	2,625	2,895

State Taxation

In 1971-72 in Tasmania the chief State taxes, in order of importance, were pay-roll tax; motor taxes; stamp duties (on cheques, legal documents, etc.); probate and succession duties; and land tax. Pay-roll tax which was handed over to the State by the Commonwealth for the 1971-72 financial year has now become the largest single source of State tax revenue.

In the following tables, the figures shown for total taxes paid to Consolidated Revenue do not agree with those published by the State Treasurer. Excluded from the tables are amounts received from the Victorian Government under the Victorian Lotteries Agreement while 'Motor Taxes' include amounts not treated as taxes by the State Treasurer. The following table gives a summary, for a three-year period, of State taxation taken into the Consolidated Revenue Fund:

**State Taxation Collections Paid into Consolidated Revenue
(\$'000)**

Tax or Licence	1969-70	1970-71	1971-72
Pay-roll Tax .. ..	..	..	8,249
Probate and Succession Duties	3,263	3,065	3,143
Stamp Duties (a)	5,411	5,305	4,743
Land Tax	2,633	2,851	2,799
Liquor Tax and Licences	1,135	1,266	1,346
Racing Taxes	883	1,079	1,172
Motor Taxes (b)	6,718	7,312	8,058
Hydro-Electric Statutory Levy .. ..	..	..	804
Entertainment Tax	89	90	109
Other Licences	48	44	14
Total (c)	20,181	21,012	30,437

(a) Excludes: (i) stamp duties on bookmakers' tickets (included in 'Racing Taxes'); (ii) stamp duty on third party insurance (included in 'Motor Taxes'); and (iii) stamp duty on motor vehicle registrations (included in 'Motor Taxes').

(b) See following section 'Motor Taxes'.

(c) Excluded are the following amounts received from the Victorian Government under the Victorian Lotteries Agreement: 1969-70, \$116,196; 1970-71 \$196,038; 1971-72 \$179,343.

Motor Taxes: In the preceding table motor taxes are shown as \$8,058,000 for year 1971-72. The next table shows how this figure can be reconciled with motor tax figures published by the State Treasurer:

Motor Taxes (a) Paid to Consolidated Revenue Fund, 1971-72
(\$'000)

Item	Amount
Motor Taxes	8,058
Less Stamp Duty on—Vehicle Registration (b)	436
Third Party Insurance (b)	328
Traffic Fees (c) Paid to—Police Department	559
Consolidated Revenue Fund	1,076
	<hr/>
'Motor Tax' as published by State Treasurer	5,659

(a) See preceding table 'State Taxation Collections Paid into Consolidated Revenue Fund'.

(b) Treated as 'stamp duty tax' items by the State Treasurer.

(c) Includes motor vehicle registration fees, drivers' licences, charges for number plates, transfer of ownership fees and learners' permits.

Not all State taxation is paid into the Consolidated Revenue Fund, as shown in the following table:

State Taxation Collections Paid to Special Funds
(\$'000)

Particulars	1969-70	1970-71	1971-72
Motor Taxation—			
Retained by Transport Commission	80	80	80
Racing Taxation—			
Paid to Racing Clubs and Racing Commission	r511	430	477
Insurance Companies—			
Contributions to Fire Authorities	666	736	988
Total	r1,257	1,246	1,545

The following summarises total State taxation collections:

Total State Taxation Collections (a)
(\$'000)

Particulars	1969-70	1970-71	1971-72
Paid into—Consolidated Revenue	20,181	21,012	30,437
Special Funds	r1,257	1,246	1,545
Adjustment (b)	r14	— 26	— 5
Total	21,453	22,231	31,977

(a) Taxation is described more fully in a subsequent section, 'Taxation in Tasmania'.

(b) An adjustment item is necessary to reconcile items referring to different accounting periods.

Consolidated Revenue Fund—Expenditure

In the following table a summary is given of the principal items of Consolidated Revenue Fund expenditure classified according to function:

Consolidated Revenue Fund: Expenditure by Function (a)
(\$'000)

Classification by Function	1969-70	1970-71	1971-72
Law, Order and Public Safety—			
Administration of Justice	1,338	1,631	1,800
Police	4,156	4,989	6,358
Prisons	866	996	1,106
Custody and Care of Delinquent Children	199	227	282
Fire Brigades	466	477	554
Other	58	132	179
Total	7,083	8,451	10,278
Education—			
Teacher Training	2,099	2,725	2,720
Primary (b)	9,275	11,391	12,730
Secondary	9,922	12,291	14,286
Tertiary—			
Technical	1,215	1,411	1,710
University	2,037	2,260	2,664
Advanced	716	1,014	2,179
Other (incl. Administration of Education Dept)	3,553	4,118	4,010
Total	28,818	35,210	40,300
Public Health—			
Mental Hospitals	2,185	2,505	2,773
T.B. Sanatoria	218	240	246
Other Hospitals (excl. Repatriation)	9,190	10,470	11,696
Maternal and Infant Health Centres	300	341	374
School Children (incl. Free Milk)	684	787	902
Other	1,914	2,422	2,804
Total	14,491	16,765	18,794
Welfare—			
Child Welfare (incl. Administration)	538	514	612
Relief of Destitute, Aged and Incapacitated	2,116	2,670	2,965
Unemployment Relief .. .. .	..	..	1,692
Other (incl. Disaster Relief)	256	425	331
Total	2,909	3,609	5,600
Development and Conservation of National Resources and Assistance to Industries—			
Agricultural, Pastoral and Dairying	3,333	4,025	4,259
Forestry	1,598	1,653	1,815
Mines and Minerals	673	794	937
Water Supplies	896	967	988
Fisheries and Game	291	329	276
Secondary Industries	193	154	154
Land Administration—			
Soldier Settlement (c)	2,310	125	135
Other	687	854	1,361
Other	988	1,222	1,429
Total	10,970	10,122	11,354
Transport and Communication—			
Bus Services	1,011	1,418	1,310
Roads and Bridges	4,877	5,134	5,723
Railways and Other Services	(d) 1,685	4,113	6,478
Total	7,574	10,665	13,511
Legislature—			
Governor's Establishment	146	158	162
Parliament (incl. Committees)	822	996	1,022
Other	86	103	159
Total	1,055	1,258	1,344

Consolidated Revenue Fund: Expenditure by Function—(a) continued
(\\$'000)

Classification by Function	1969-70	1970-71	1971-72
General Administration Services n.e.i.—			
Public Service Administration	392	476	455
Public Works Administration	3,219	3,877	4,405
Other	3,768	4,591	5,188
Total	7,379	8,943	10,048
Regulation of Trade and Industry and Industrial Safety ..	484	618	697
Housing	297	393	413
Insurance	69	48	40
Cultural and Recreational—			
Public Libraries, Museums and Art Galleries ..	860	1,032	1,326
Other (incl. Parks, Gardens, Reserves, Sports Grounds)	386	551	803
Total	1,246	1,583	2,130
Services n.e.i.	243	234	316
Debt Services n.e.i. (State)—			
Interest and Exchange	31,556	32,873	37,256
Sinking Fund and Redemption	4,862	5,264	5,535
Loan Management	236	379	325
Total	36,653	38,516	43,116
Superannuation n.e.i.	1,414	1,585	2,080
All Other	318	207	217
Total Expenditure	121,004	138,207	160,237

(a) Based on Commonwealth code developed for analysis of government sector accounts.

(b) Includes special schools for handicapped children.

(c) The State's final contribution towards valuation losses on properties was made in 1969-70.

(d) Part of the Transport Commission deficit was financed from Loan Fund.

Public Debt Charges

This is the largest item of expenditure but a high proportion is recovered from semi-government authorities. Interest and sinking fund contributions differ from those shown in the previous table: in the table below, interest on re-purchased securities is included in Sinking Fund (but in the previous table included under Interest and Exchange).

Public Debt Charges: Net Burden on Consolidated Revenue
(\\$'000)

Particulars	Interest			Sinking Fund Contribution		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
Expenditure from Consolidated Revenue	(a) 31,771	(a) 33,229	(a) 37,890	(b) 4,881	(b) 5,287	(b) 5,595
Recovered from Semi-Government Bodies, etc.	19,732	21,770	24,536	2,476	2,625	2,895
Net Burden on Consolidated Revenue (c)	12,040	11,459	13,354	2,405	2,662	2,700

(a) Includes loan management charges.

(b) Contribution payable under the Financial Agreement to the National Debt Sinking Fund.

(c) In respect of non-revenue producing assets such as schools, roads, etc.

Government Railways and Bus Services

Unlike the Consolidated Revenue Funds of some Australian States, the Tasmanian Fund excludes the *gross* receipts and expenditure of State business undertakings such as railways, bus services, etc. The principal charge in 1971-72 under this item was in respect of the *net* loss incurred by the Transport Commission during 1970-71 (\$5,830,302). Another major item was a contribution of \$1,310,000 to the Metropolitan Transport Trust which experienced a net trading loss of \$1,420,262 in 1970-71.

Roads and Bridges

The chief expenditure under this item in 1971-72 was a transfer of \$5,659,392 to the State Highways Trust Fund, representing revenue received from motor tax and public vehicle fees. Grants totalling \$1,100,000 were paid from Consolidated Revenue Fund to the Transport Commission to cover the cost of vehicle registration and traffic control.

State Trust and Special Funds

State revenues are payable to Consolidated Revenue with the exception of certain revenues which have been set aside by Acts of Parliament for specific purposes and which are payable into special funds or accounts at the State Treasury. The volume of these transactions is high, \$142,529,304 being received in 1971-72, \$141,784,858 being expended and the balance in the funds changing from \$7,963,047 (1 July 1971) to \$8,707,493 (30 June 1972).

It should be noted that many accounts in the Trust and Special Funds indicate Treasury transactions which are merely supplementary to those recorded under Consolidated Revenue and Loan Funds; the following examples are given:

State Trust and Special Funds: Selected Accounts, 1971-72
('\$000)

Account	Receipts	Expenditure
Commonwealth Tax Deductions Suspense Account (a)	12,701.1	12,701.1
Hydro-Electric Commission Suspense Account (b)	474.1	460.0

(a) Wages and salaries included under Consolidated Revenue and Loan Fund expenditure are shown at gross value; however, the deductions applicable to wage and salary earners on Government pay-rolls are passed, via this account, to the Commonwealth.

(b) The Treasury acts as agent for meeting overseas liabilities incurred by the Hydro-Electric Commission; these liabilities, mainly incurred in the acquisition of plant and equipment, are largely accounted for in Loan Fund expenditure.

Some accounts are concerned with Government activities financed by the Commonwealth, the State acting as trustee or agent in the transactions; examples follow:

State Trust and Special Funds: Selected Commonwealth Accounts, 1971-72
('\$000)

Account	Receipts	Expenditure
Tasmanian University (Commonwealth Grants) Account (a)	2,061.2	2,061.2
Commonwealth Free Milk Scheme Account (b)	504.5	540.1
Home Builders Fund (c)	2,087.3	2,128.7

(a) Treasury passes Commonwealth grants to University of Tasmania.

(b) Education Department administers Free Milk Scheme for school children on behalf of the Commonwealth.

(c) Agricultural Bank administers loans to home builders, the source of funds being the Commonwealth.

In the case of some accounts, there is provision for crediting the Trust and Special Funds with contributions from Consolidated Revenue, an important example being the State Highways Trust Fund:

State Trust and Special Funds: State Highways Trust Fund, 1971-72
('\$000)

Item	Receipts	Expenditure
Commonwealth Contribution	10,820.0	..
Grant from Consolidated Revenue	5,659.4	..
Roads, Bridges, Jetties, Ferries and Planning	323.5	16,710.8
Self-balancing Entries	1,575.9	1,575.9
Fund Entries	18,378.8	18,286.7

The Forestry Fund Account records transactions under legislation requiring revenue from forestry to be paid to Consolidated Revenue, and for Consolidated Revenue to expend an equal amount on forestry in the following year:

State Trust and Special Funds: Forestry Fund Account, 1971-72
('\$000)

Item	Receipts	Expenditure
Grant from Consolidated Revenue (a)	1,814.8	..
Expenditure on Forestry .. .. .	..	1,856.7
Reimbursement, Softwood Forestry Agreement	41.9	..
Self-balancing Entries	838.3	838.3
Fund Entries	2,695.0	2,695.0

(a) Consolidated Revenue recorded Forestry receipts of \$1,814,804 in 1970-71; this sum therefore became the 1971-72 contribution from Consolidated Revenue.

Some of the funds held in trust are not owned by the State Government, e.g. St John's Park Inmates Trust Account. Other funds are held on behalf of semi-government authorities, e.g. Agricultural Bank.

State Loan Fund

Expenditure from the Loan Fund is devoted to two main purposes: (i) the making of advances to State semi-government authorities; and (ii) the carrying out of the State's own works programme. Such funds, whether lent to other authorities for their works programmes or spent directly by the State, result in the creation of new capital assets, a large proportion of which are revenue earning and therefore capable of reimbursing the State for the debt charges which it has incurred. (An earlier section on Consolidated Revenue Expenditure shows the gross and net expenditure on annual debt charges.) In addition, conversion of existing loans is effected from the Loan Fund, but the amounts involved have been excluded from the next two tables as these transactions only alter the rates, sources or terms of existing Public Debt. Details of these debt servicing transactions are contained in a later table, 'Net Loan Fund Expenditure—Reconciliation.'

In addition to money from loan raisings, the Loan Fund may record other receipts such as repayment of advances and Commonwealth capital grants; it is usual, therefore, to record loan expenditure on both gross and net bases. The annual net loan expenditure is, in effect, the disbursement of the new borrowings, as distinct from loan conversion borrowings, for the year, augmented or diminished by the net movement in the Loan Fund balance. The following table shows the calculation of net loan expenditure from two viewpoints: (i) as a residue from gross loan expenditure; and (ii) as the algebraic sum of new loan raisings for new capital purposes, the net movement in the Loan Fund balance and discount and capital appreciation expenses.

**State Loan Fund: Calculation of Net Loan Expenditure
(\$'000)**

Particulars	1969-70	1970-71	1971-72
(i) Gross Loan Expenditure	49,411	52,079	73,037
Less Repayments	2,257	2,437	3,000
Less Commonwealth Grants	2,086	2,249	3,769
Net Loan Expenditure	45,069	47,393	66,268
(ii) Gross Borrowings for New Capital Purposes ..	45,370	(a) 34,576	(a) 47,028
Commonwealth Grant (b) .. .. .	..	13,980	15,310
Movement in Loan Fund Balance	-400	-1,345	3,789
Other (c)	99	182	141
Net Loan Expenditure	45,069	47,393	66,268

(a) Includes discount on borrowings for new capital purposes. Amounts were: \$6,000, 1970-71; \$8,000, 1971-72.

(b) Commencing in 1970-71 the Commonwealth is providing grants to replace amounts which would otherwise have been obtained as loan borrowings.

(c) Discount on borrowings for conversion and re-financing purposes and capital appreciation items.

The following table shows annual gross and net loan expenditure:

**Loan Fund: Gross and Net Loan Expenditure
(\$'000)**

Year	Loan Expenditure		Year	Loan Expenditure	
	Gross	Net		Gross	Net
1954-55	35,310	29,378	1963-64	35,354	32,905
1955-56	35,212	27,048	1964-65	35,816	33,352
1956-57	23,544	22,038	1965-66	39,411	36,573
1957-58	23,390	21,666	1966-67	40,161	36,636
1958-59	27,610	25,112	1967-68	46,054	42,128
1959-60	29,130	26,442	1968-69	44,458	40,164
1960-61	33,866	30,612	1969-70	49,411	45,069
1961-62	32,520	30,088	1970-71	52,079	47,393
1962-63	33,332	30,510	1971-72	73,037	66,268

The next table shows loan fund payments classified according to function:

**Loan Fund Payments Classified by Function (a)
(\$'000)**

Function	1969-70	1970-71	1971-72
Part 1: Net Payments by Function (b)—			
Law, Order and Public Safety—			
Police	508	1,104	1,277
Prisons	98	148	198
Other	607	350	357
Total	1,213	1,602	1,832
Education—			
Primary	1,169	1,132	1,470
Secondary	1,125	1,343	3,295
Tertiary—			
Advanced	275	658	1,179
Technical	156	—21	114
University	1,216	171	338
Other	1,527	2,408	2,013
Total	5,467	5,691	8,409

Loan Fund Payments Classified by Function (a)—continued
(\$'000)

Function	1969-70	1970-71	1971-72
Public Health—			
Mental and Other Hospitals (excl. Repatriation) ..	4,650	5,020	4,501
Ambulances	49	74	106
Other	100	78	-39
Total	4,799	5,173	4,568
Welfare	71	-1	488
Development and Conservation of National Resources and Assistance to Industries—			
Agricultural, Pastoral and Dairying	873	944	384
Forestry	1,443	1,870	2,143
Mines and Minerals	-242	-232	-273
Fisheries and Game	198	86	160
Water Supplies	620	1,001	605
Secondary Industries	810	-53	148
Land Administration	85	13	94
Other	319	372	232
Total	4,106	4,000	3,492
Transport and Communication—			
Roads and Bridges	1,048	973	901
Other	3,334	2,047	5,926
Total	4,381	3,020	6,827
Electricity (Advances to the H.E.C.)	23,125	24,500	26,000
Public Works Administration n.e.i.	1,420	2,204	1,499
Housing	-353	-365	(c)7,882
Cultural and Recreational	974	1,574	927
Debt Services n.e.i. (State)—			
Sinking Fund and Redemption (incl. Conversion)..	53,847	73,483	61,622
Loan Management	-81	-139	-93
Total	53,766	73,345	61,529
Other	-154	-55	(d)4,288
Part 2: Total Repayments to Loan Fund (b) (e) ..	4,342	4,686	6,769
Total Payments from Loan Fund ..	103,159	125,374	134,510

(a) Based on Commonwealth code used in analysis of government sector accounts.

(b) Part 1 payments for each function are gross less repayments; Part 2 shows the repayments in total.

(c) Previously recorded in Trust and Special Funds transactions.

(d) Principally funding of accumulated revenue deficits.

(e) Includes minor Commonwealth grants taken into Loan Fund.

The item 'Total Repayments to Loan Fund' in the preceding table includes minor grants received from the Commonwealth and credited to Loan Fund (the total amount in 1971-72 was \$3,769,000). The major grant, which is excluded from the item 'Total Repayments to Loan Fund', in 1971-72 was \$15,310,000. Minor Commonwealth Grants received in 1971-72 were: (i) advanced education grants, \$1,373,000; (ii) university financial assistance grants, \$660,000; (iii) capital assistance grants for schools, \$470,000; (iv) technical training grants, \$380,000; (v) school libraries grants, \$299,000; (vi) grants for school science laboratories, \$248,000; and (vii) mental health institutions grants, \$125,000. Principal repayments to the Loan Fund from State sources in 1971-72 were: (i) recoveries of rural advances under the *State Advances Act 1935*, \$669,000, and *Primary Producers' Relief Acts*, \$297,000; (ii) repayments under the *Industrial Development Act*, \$542,000; and (iii) repayments under the *Homes Act 1935*, \$417,000.

The following table shows how a reconciliation may be obtained between total loan fund payments in the previous table and net loan fund expenditure:

Net Loan Fund Expenditure: Reconciliation
('\$000)

Particulars	1969-70	1970-71	1971-72
Total Payments from Loan Fund	103,159	125,374	134,510
<i>Less</i> Debt Service Transactions—			
Conversion (Australia)	37,005	45,254	56,567
Conversion (State Saving Bank Agreement)	960	960	960
Redemption from New Cash Borrowing	15,882	27,269	4,096
Loan Fund Expenditure for New Capital Purposes ..	49,312	51,891	72,888
<i>Plus</i> Capital Appreciation on Special Bonds	99	182	141
<i>Plus</i> Discount Allowed on Borrowings .. ..	..	6	8
Gross Loan Fund Expenditure	49,411	52,079	73,037
<i>Less</i> Total Repayments to Loan Fund	4,342	4,686	6,769
Net Loan Fund Expenditure (a)	45,069	47,393	66,268

(a) As specified in Treasurer's Statement.

The relationship between aggregate net loan expenditure, total loans raised and the State Public Debt is established in the following table:

Aggregate Net Loan Expenditure and State Public Debt at 30 June
('\$000)

Particulars	1970	1971	1972
Aggregate Net Loan Expenditure	719,650	767,042	833,310
Unexpended Balance, Loan Fund	3,754	5,099	1,310
Grand Total Loans Raised	723,404	772,142	834,621
<i>Less</i> Aggregate Redemptions from Sinking Funds ..	77,304	84,073	91,368
<i>Less</i> Liability for Exchange on Overseas Redemption ..	8,692	8,692	8,692
<i>Less</i> Commonwealth Grant (a) .. .. .	..	13,980	29,290
State Public Debt (b)	637,407	665,397	705,271

(a) Capital grant provided to replace amounts which would otherwise have been obtained as loan borrowings.

(b) Overseas component is \$10,104,000, quoted at rates of exchange prevailing on 1 July 1927.

The *Public Account Act* 1962 has, amongst other things, the following provisions relating to the Loan Fund: (i) the Governor, on Treasury advice, may make transfers between block votes as long as the total authorised amount is not exceeded; (ii) a sum of up to \$400,000 may be spent for purposes not previously authorised; (iii) for purposes previously authorised, an additional sum of up to \$1m may be spent; (iv) in instances of expenditure outside the provisions of a specific Loan Fund Appropriation Act, the ratification of such action is to be sought from Parliament before the close of the following financial year. The Act also provides that the unexpended balances of votes at the close of the financial year lapse (in contrast with previous practice when such balances were carried forward from year to year).

State Public Debt

The State Public Debt is calculated on two bases: (i) with overseas debt calculated at 'mint par of exchange', i.e. at the exchange rates prevailing on 1 July 1927; and (ii) with overseas debt calculated at current rates of exchange. 'Mint par debt' is the official debt for the purpose of determining sinking fund contributions payable under the Financial Agreement, 1927.

The following table shows the State Public Debt calculated on both bases:

State Public Debt at 30 June 1972: At Mint Par of Exchange and at Current Rates of Exchange

Place in Which Debt Repayable	\$ Aust. at Mint Par of Exchange		\$ Aust. at Current Rates of Exchange	
	Conversion Rate of \$A (a)	Debt (\$'000)	Conversion Rate of \$A (b)	Debt (\$'000)
Australia .. ..	.. ..	695,167	.. ..	695,167
London	£0.5 sterling ..	5,914	£0.48485 sterling	6,099
New York	U.S. \$2.43325	3,301	U.S. \$1.191	6,743
Canada	C. \$2.43325	330	C. \$1.1706	686
Switzerland	S. Francs 12.61965	293	S. Francs 4.5734	810
Netherlands	Guilders 6.053925	266	Guilders 3.8644	417
Total .. ..	.. ..	705,271	.. ..	709,921

(a) Exchange rates at 1 July 1927 (rate for £A 0.5).

(b) Exchange rates at 30 June 1972 for \$A.

The most significant changes between the 1927 rates of exchange and those current today occurred in six stages: (i) 1930, when the Australian pound was devalued 20 per cent in relation to sterling; (ii) 1949, when the Australian pound was devalued by 30.5 per cent parallel to a similar devaluation in sterling; (iii) 1967, when the pound sterling was devalued 14.3 per cent (but the decision was taken not to devalue the \$A); (iv) 1971, when the Australian dollar, although remaining within the fluctuation limits of the International Monetary Fund, was devalued 2.25 per cent following a 7.89 per cent devaluation of the United States dollar; (v) December 1972, when the Australian dollar was revalued against the United States dollar to give an effective appreciation of the Australian dollar of 7.05 per cent; (vi) this was followed in February 1973 by the retention of the value against gold of the Australian dollar despite a 10 per cent devaluation of the United States dollar (this had the effect of further appreciating the Australian dollar).

The growth of the public debt, expressed at mint par of exchange, is shown in the following table:

State Public Debt: Place of Flotation and Interest Payable
(\$'000)

At 30 June	Debt Redeemable In—						Total Debt	Interest Payable (a)
	London	New York	Canada	Switzer- land	Nether- lands	Australia		
1963	16,092	4,846	505	293	399	382,458	404,594	18,523
1964	17,724	4,684	486	293	399	408,724	432,311	19,790
1965	17,544	4,430	473	293	399	439,163	462,302	21,707
1966	13,733	5,743	444	293	399	471,045	491,658	23,987
1967	13,643	5,284	419	293	399	504,880	524,918	25,940
1968	8,382	4,913	393	293	372	546,539	560,893	27,778
1969	8,082	4,549	387	293	346	586,078	599,736	30,040
1970	6,674	4,178	368	293	319	625,575	637,407	32,939
1971	6,154	3,778	350	293	293	654,530	665,397	36,203
1972	5,914	3,301	330	293	266	695,167	705,271	39,202

(a) Interest payable at rate of exchange which was current in the year of payment.

A notable feature of the State public debt is that approximately 98 per cent of indebtedness (at current rates of exchange) is now domiciled in Australia. There has been a gradual change from the situation which existed a century ago when nearly all loans were financed in London. In 1870, the State's public debt (\$2,537,400) was wholly redeemable in London and even in 1900, less than 10 per cent of the State debt was redeemable in Australia.

Public Debt Transactions

The following table shows particulars of loans raised and redeemed annually during the most recent three-year period (expressed at mint par of exchange) and also the transactions for the current year expressed at current rates of exchange. It will be observed that redemption of loans falling due in any particular year is achieved, in the main, by conversion (i.e. by renewal of the original loans on new terms and conditions).

State Public Debt: Conversion and Redemption (\$'000)

Particulars	At Mint Par of Exchange			At Current Rates
	1969-70	1970-71	1971-72	1971-72
Loans Raised For—				
New Capital Purposes	45,370	34,576	47,028	47,028
Conversion Purposes	37,965	46,214	57,527	57,527
Redemption, Maturing Loans	15,882	27,269	4,096	4,096
Total Raisings	99,217	108,059	108,651	108,651
Less Loans Redeemed—				
By Conversion	37,965	46,214	57,527	57,527
From New Cash Raisings	15,783	27,087	3,955	3,955
From National Debt Sinking Fund	7,797	6,768	7,295	(a)8,572
Net Increase in Public Debt	37,672	27,990	39,874	38,597
Debt at End of Year	637,407	665,397	705,271	709,921

(a) Includes a balancing item due to fluctuation in exchange rates during the year, the actual redemption being \$7,763,000.

The following table shows the due dates of loans outstanding at current exchange rates (i.e. at the rates prevailing at 30 June 1972) and also the country in which the loans will fall due:

Due Dates of Loans at 30 June 1972 (\$'000)

Maturing During—	Amount Maturing In—				Total
	Australia	London	New York	Other Overseas Countries	
1972-73	51,777	..	655	42	52,473
1973-74	70,938	..	..	42	70,980
1974-75	37,436	1,444	..	42	38,921
1975-76	61,139	132	..	851	62,122
1976-77	26,615	..	..	42	26,657
1977-78	39,335	1,031	..	42	40,408
1978-79	34,522	1,598	424	42	36,586
1979-80	17,706	..	532	42	18,280
1980-81	24,039	..	540	728	25,306
1981-82 to 1985-86	125,806	1,893	4,592	42	132,332
1986-87 to 1990-91	114,842	..	..	..	114,842
1991-92 to 1995-96	29,470	..	..	..	29,470
1996-97 to 2005-06	61,543	..	..	..	61,543
Total	695,167	6,099	6,743	1,913	709,921

The following table shows the rates of interest which are payable on the State Debt and the portions of the debt at each rate in each country (*at current exchange rates*):

Rates of Interest on Public Debt: 30 June 1972
(*\$'000*)

Rates of Interest (Per Cent)	Amount Maturing In—				Total
	Australia	London	New York	Other Overseas Countries	
1.0	409	..	..	..	409
3.25 .. .. .	..	1,444	..	..	1,444
4.125	10,560	..	..	..	10,560
4.1875	1,812	..	..	..	1,812
4.25	22,066	..	..	..	22,066
4.3125	850	..	..	..	850
4.4375	2,092	..	..	..	2,092
4.50	13,957	..	..	810	14,766
4.625	2,954	..	..	..	2,954
4.75	7,710	..	655	..	8,365
5.00	185,012	..	424	417	185,853
5.15	1,791	..	..	..	1,791
5.20	4,970	..	..	..	4,970
5.25	127,370	..	1,072	..	128,442
5.30	21,163	..	..	..	21,163
5.375	17,362	..	..	..	17,362
5.40	25,670	..	..	..	25,670
5.50	5,990	4,360	2,148	..	12,498
5.60	4,467	..	..	..	4,467
5.70	1,685	..	..	..	1,685
5.75	6,076	..	2,444	686	9,207
5.80	19,787	..	..	..	19,787
5.90	3,450	..	..	..	3,450
6.00	28,054	295	..	..	28,349
6.30	13,524	..	..	..	13,524
6.40	40,068	..	..	..	40,068
6.45	112	..	..	..	112
6.50	44,491	..	..	..	44,491
6.60	8,293	..	..	..	8,293
6.70	4,392	..	..	..	4,392
6.75	5,105	..	..	..	5,105
6.80	22,575	..	..	..	22,575
7.00	41,350	..	..	..	41,350
Total	695,167	6,099	6,743	1,913	709,921

The next table summarises the transactions of the National Debt Commission in relation to the Tasmanian Public Debt:

National Debt Commission: Transactions in Respect of Tasmanian Public Debt
(*\$'000*)

Particulars	1969-70	1970-71	1971-72
Balance at Beginning of Period	2,354	724	555
Contributions—			
From—Commonwealth Government	1,598	1,694	1,825
State Government	4,861	5,263	5,579
Interest Received (Net)	67	16	13
Funds Available	8,880	7,697	7,972
Deduct			
Redemption and Re-Purchase (a)—			
At Mint Par of Exchange	7,797	6,768	7,295
Exchange Adjustment	359	373	468
Balance at End of Period	724	555	209

(a) At rates of exchange which were current at the date of redemption or re-purchase.

The National Debt Commission was established as part of the 1927 Financial Agreement and its function is to administer one consolidated sinking fund in respect of the debt of the Commonwealth and States. Sinking fund moneys are used to redeem unconverted securities at maturity and to re-purchase securities on the stock market. The obligations of the States and the Commonwealth in contributing to the consolidated sinking fund are set out earlier in this Chapter in a section headed '*Payments Under the Financial Agreement (1927)*'; although the Commission operates a consolidated fund, it is possible to obtain statements for its operations with respect to each State's public debt.

TAXATION

Taxation in Tasmania

Introduction

As citizens of the Commonwealth, Tasmanians are subject to taxes levied both by the State and the Commonwealth. The next table shows taxes (total amounts and per capita figures) collected by the State Government and semi-government authorities in Tasmania and Commonwealth collections for Australia.

Taxation: State of Tasmania and Commonwealth, 1971-72 (a)

Tax	Amount (\$'000)		Per Head of Population (\$)	
	Tasmania (b)	Common- wealth (c)	Tasmania	Common- wealth
Income .. .. .	..	5,300,976	..	411.06
Customs and Excise .. .. .	..	1,681,657	..	130.40
Sales .. .. .	..	680,775	..	52.79
Pay-roll	8,249	91,070	21.04	7.06
Probate and Succession Duties	3,143	67,258	8.02	5.22
Motor	8,139	..	20.76	..
Stamp Duties	4,718	..	12.04	..
Receipts Duty	25	..	0.06	..
Land	2,799	..	7.14	..
Racing	1,644	..	4.19	..
Liquor	1,346	..	3.43	..
H.E.C. Statutory Levy	804	..	2.05	..
Levy on Insurance Companies for Fire Auth- orities	988	..	2.52	..
Entertainment	109	..	0.28	..
Broadcast Listeners' and Television Viewers' Licences .. .. .	..	61,785	..	4.79
All Other	14	58,881	0.04	4.57
Total	31,977	7,942,402	81.58	615.88

(a) Collections from all sources, including amounts paid to special funds.

(b) State taxes collected by Tasmanian Government and other State authorities.

(c) Commonwealth taxes collected for Australia as a whole.

In addition to the taxes shown in the above table Tasmanian property owners also pay rates and licence fees to local government authorities. Total rates and licence fees collected during 1971-72 amounted to \$20,507,000 or \$52.31 per head of mean population.

Assuming that Tasmanians contributed to Commonwealth taxation in strict proportion to the relative mean populations of the State and the Commonwealth, it would be theoretically correct to add the two per capita figures (\$81.58 and \$615.88) and arrive at a figure of \$697.46 as the total per capita taxation of the Tasmanian and Commonwealth Governments within the State. An alternative way of examining the problem is to refer to total Commonwealth taxes collected in Tasmania but this measure is unsatisfactory for a number of reasons, the chief defects being:

- (i) Central Office collections of Commonwealth taxation ceased at 30 June 1970 and for the income years after 1969-70 all assessments are being handled in State Offices of the Taxation Department. The effects of this change are deceptive because income tax *collected in Tasmania* does not necessarily directly relate to income *earned in Tasmania* since a company with branches in Tasmania but with its head-office in Melbourne may make its return to the Victorian Taxation Office.
- (ii) Goods shipped to Tasmania will, in some cases, already have been taxed in another State in respect of customs, excise or sales taxes. Even though other States are credited with the collection of these three taxes, the fact remains that Tasmanians bear their incidence in the form of increased commodity prices. The amount of tax collected in other Australian States on goods shipped to Tasmania is not known.

Estimated Incidence

In assessing the collection in other Australian States of the main taxes affecting Tasmanians, account is taken of selected sales figures derived from the latest Retail Census which showed Tasmanian *per head* sales to be 92.5 per cent of the corresponding Australian figure. Accordingly the *per head* incidence of customs, excise and sales taxes in Tasmania is taken to be 92.5 per cent of the Australian *per head* collection figure for each tax. Estimates are compiled using these *per head* figures and the State's mean population.

The following table shows actual collections of Commonwealth taxes in the State and also the estimated incidence of taxes collected elsewhere in Australia:

Taxation: Collected by Commonwealth in Tasmania and Elsewhere, and Estimated Incidence in Tasmania (\$'000)

Tax	1969-70	1970-71	1971-72
Collected in Tasmania—			
Income Tax	(a) 79,728	(b) 92,414	(b) 103,715
Estate Duty	(a) 1,518	(b) 1,624	(b) 1,136
Pay-roll Tax	6,089	6,965	2,035
Gift Duty	200	228	134
Stevedoring Industry Charge	1,058	964	1,043
Broadcast Listeners' and Television Viewers' Licences	1,397	1,429	1,670
Primary Production Taxes	719	608	594
Sales Tax	12,983	14,029	13,584
Customs	3,231	3,164	2,490
Excise	23,668	27,490	32,053
Other	38	57	77
Total Collected in Tasmania	130,629	148,972	158,530
Collected Elsewhere in Australia (c)—			
Sales Tax	3,426	4,001	5,576
Customs	8,701	10,120	10,704
Excise	3,432	2,539	2,084
Estimated Incidence	146,188	165,632	176,894

(a) Central Office collections of tax relating to Tasmania are excluded.

(b) Central Office collections ceased; however, *tax collected in Tasmania* may not directly relate to *income earned and assets in Tasmania* since a multi-State return can be lodged in any one State office.

(c) Estimated; goods on which these taxes were paid are assumed to have been sold in Tasmania.

Commonwealth Income Tax

Income tax, the most important revenue raising levy in the Commonwealth, was introduced into Australia in 1884 by the colony of South Australia. In the course of time this form of taxation was adopted by all the Australian Governments between 1884 and 1915. From 1915 to 1942 the State and Commonwealth Governments imposed taxation concurrently, the rate of State income tax varying from State to State.

Uniform taxation on incomes throughout Australia was adopted in 1942, as a war measure, when the Commonwealth Government became the sole authority levying this tax.

Certain types of income are exempt from tax in Australia. Prior to the 1973 Federal Budget these included income from gold and uranium mining; war, invalid, age and widows' pensions; child endowment; and unemployment and sickness benefits.

Expenses incurred in producing assessable income and certain losses incurred in previous years may be allowable deductions in calculating taxable income.

For the income year 1972-73, tax was payable on the incomes of individuals and commenced at a taxable income of \$1,041. However, certain limitations applied to the tax payable by aged persons, over 65 years of age in the case of a male and over 60 years in the case of a female. Concessional deductions were allowed to taxpayers on account of dependants, certain medical and dental expenses, life insurance premiums and superannuation contributions (up to \$1,200), medical or hospital benefit fund contributions and education expenses (up to \$400 per dependant), self-education expenses of the taxpayer (up to \$400), etc.; these outlays can be subtracted from gross income to calculate taxable income. Dependants included spouse, parents, parents-in-law, children under 16 years of age, student dependants under 25 years of age, invalid relative over 16 years of age, or daughter-housekeeper for widow or widower so long as they were maintained wholly or in part by the taxpayer during the year. A concessional deduction might be allowed for a housekeeper having the care of children under 16 years of age or of an invalid relative where the taxpayer did not contribute to the maintenance of a spouse or daughter-housekeeper. The maximum concessional deduction allowable in respect of each type of dependant and housekeeper was:

spouse, \$364; parent or parent-in-law, \$364; children under 16 years; one child, \$260, other children, \$208; student dependants, 16 to 25 years, \$260 each; invalid relative not less than 16 years, \$260 each; housekeeper or daughter-housekeeper, \$364.

The following table shows the rates of income tax for individuals for the income year 1972-73:

Australia: Personal Income Tax Payable on Selected Incomes, Income Year 1972-73
(£)

Taxable Income				Tax Payable				Taxable Income				Tax Payable			
1,041 (a)	0.66	8,400	..	..	..	..	2,192.30	8,400	..	..	..
1,120	53.46	8,800	..	..	..	..	2,359.50	8,800	..	..	..
1,200	61.30	9,200	..	..	..	..	2,535.90	9,200	..	..	..
1,600	109.30	9,600	..	..	..	..	2,712.30	9,600	..	..	..
2,000	168.30	10,000	..	..	..	..	2,888.70	10,000	..	..	..
2,400	237.10	11,000	..	..	..	..	3,370.70	11,000	..	..	..
2,800	315.50	12,000	..	..	..	..	3,852.70	12,000	..	..	..
3,200	403.50	13,000	..	..	..	..	4,398.70	13,000	..	..	..
3,600	501.10	14,000	..	..	..	..	4,944.70	14,000	..	..	..
4,000	608.30	15,000	..	..	..	..	5,490.70	15,000	..	..	..
4,400	729.50	16,000	..	..	..	..	6,036.70	16,000	..	..	..
4,800	850.70	17,000	..	..	..	..	6,639.70	17,000	..	..	..
5,200	983.90	18,000	..	..	..	..	7,242.70	18,000	..	..	..
5,600	1,117.10	19,000	..	..	..	..	7,845.70	19,000	..	..	..
6,000	1,259.90	20,000	..	..	..	..	8,448.70	20,000	..	..	..
6,400	1,402.70	25,000	..	..	..	..	11,648.70	25,000	..	..	..
6,800	1,554.30	30,000	..	..	..	..	14,848.70	30,000	..	..	..
7,200	1,705.90	35,000	..	..	..	..	18,048.70	35,000	..	..	..
7,600	1,865.50	40,000 (b)	..	..	..	..	21,248.70	40,000	..	..	..
8,000	2,025.10										

(a) In cases where personal taxable income exceeds \$1,040 but does not exceed \$1,120, the tax is not to exceed two-thirds of the excess of the taxable income over \$1,040.

(b) Taxable income in excess of \$40,000 was taxed at 66.7 cents for each dollar of excess.

For income years 1954-55 to 1969-70 the basic scale for income tax on individuals remained the same except that general five per cent rebates were allowed in 1959-60, 1961-62, 1962-63, and 1963-64; and a 2½ per cent levy was added for the period 1965-66 to 1969-70. For 1970-71 the basic scale was revised as follows: (i) on incomes up to \$10,000 a reduction of 10 per cent; (ii) on incomes \$10,000 to \$32,000 a lesser reduction tapering to zero (the reduction at \$20,000 was 4.4 per cent). The revised 1970-71 basic scale was still subject to a 2½ per cent levy. The levy for 1971-72 averaged out at 4.375 per cent.

The 1972 budget introduced major changes to personal income taxation rates. The changes were:

- (i) a relaxation of the minimum taxable income from \$417 to \$1,041;
- (ii) a sliding scale reduction to give greater reduction to lower income levels; and
- (iii) an increase in the level above which the maximum marginal rate of tax applies (66.7c for 1972-73) from \$20,000 to \$40,000.

An explanation of the operation of the sliding scale reduction can be best shown by means of the following examples:

Taxable Income (\$)						Percentage Reduction in Tax, 1972-73 over 1971-72
2,000	..	..	..	..	..	-14.2
4,000	..	..	..	..	..	-12.4
6,000	..	..	..	..	..	-9.4
10,000	..	..	..	..	..	-8.0
40,000	..	..	..	..	..	-6.5

The next table shows the number of taxpayers, taxable income and income tax assessed during the year 1970-71 (income year: 1969-70).

Tasmania, Income Tax: Income Year 1969-70
Individuals—Residents and Non-Residents (a)

Grade of Actual Income		Number of Taxpayers			Actual Income	Taxable Income	Net Income Tax Assessed
		Males	Females	Persons			
\$					\$'000	\$'000	\$'000
417- 599	.. ..	1,395	3,137	4,532	2,336	2,236	43
600- 799	.. ..	1,667	3,504	5,171	3,611	3,357	105
800- 999	.. ..	1,544	3,645	5,189	4,681	4,256	187
1,000- 1,199	.. ..	1,806	4,012	5,818	6,389	5,700	314
1,200- 1,399	.. ..	2,146	3,941	6,087	7,920	7,066	463
1,400- 1,599	.. ..	2,369	3,986	6,355	9,539	8,450	624
1,600- 1,799	.. ..	2,531	4,082	6,613	11,242	9,944	828
1,800- 1,999	.. ..	2,892	4,338	7,230	13,737	12,018	1,105
2,000- 2,199	.. ..	3,265	3,916	7,181	15,086	13,060	1,312
2,200- 2,399	.. ..	4,105	3,261	7,366	16,941	14,353	1,553
2,400- 2,599	.. ..	4,848	2,373	7,221	18,033	14,898	1,703
2,600- 2,799	.. ..	5,589	1,730	7,319	19,763	15,921	1,911
2,800- 2,999	.. ..	6,215	1,340	7,555	21,923	17,408	2,181
3,000- 3,999	.. ..	30,504	3,962	34,466	119,621	92,079	13,049
4,000- 5,999	.. ..	26,245	2,217	28,462	135,604	103,311	18,718
6,000- 7,999	.. ..	6,410	569	6,979	47,436	36,659	8,562
8,000- 9,999	.. ..	1,897	222	2,119	18,729	14,808	4,128
10,000-19,999	.. ..	1,757	186	1,943	25,154	20,933	7,521
20,000-29,999	.. ..	170	19	189	4,403	3,882	1,831
30,000 and Over	.. ..	38	9	47	1,859	1,744	975
Total	.. ..	107,393	50,449	157,842	504,007	402,083	67,114

(a) For definitions see the following text.

The following definitions apply to the preceding table:

- (i) Actual Income: Gross income *including exempt income* less expenses incurred in earning that income.
- (ii) Individuals: *Excluding companies*. Residents assessed both in Tasmania and at Central Office, also non-residents assessed in Tasmania.
- (iii) Taxable Income: Actual income *less* exempt income and *less* allowable deductions.

A system operates whereby the majority of taxpayers have regular deductions made from their salaries or wages, i.e. the 'pay-as-you-earn' principle. The amounts deducted are regulated so that the employee will have paid the approximate amount of his taxation by the end of the income year when he makes a return in which he may claim the refund of any overpayment of taxation instalments.

Companies (Income Tax)

The tax payable by companies for the financial year 1972-73 is based on income derived during the year ended 30 June 1972 or substituted accounting period. (In the case of tax on individuals, financial year and income year are usually synonymous).

The following table shows the rates of tax and contribution payable by companies for the 1972-73 financial year:

Rates of Income Tax Contribution for Companies: Financial Year 1972-73
(Cents in the Dollar)

Type of Company	Taxable Income	
	First \$10,000	Balance
Private	37.5	42.5
Public—		
Co-operative	42.5	47.5
Life Assurance—		
Mutual	37.5	42.5
Other Life Assurance—		
Resident—		
Mutual Income	37.5	42.5
Other Income	47.5	47.5
Non-resident—		
Mutual Income	37.5	42.5
Dividend Income	42.5	47.5
Other Income	47.5	47.5
Non-profit—		
Friendly Society Dispensary	37.5	37.5
Other	42.5	47.5
Other—		
Resident	47.5	47.5
Non-resident—		
Dividend Income	42.5	47.5
Other Income	47.5	47.5

State Taxation

In the section on Consolidated Revenue, taxes collected by the Tasmanian Government were shown in summarised form.

The next table gives full details of State Taxation. It should be noted that certain taxes are reserved for special purposes. Examples are: (i) Motor Taxation—the 'motor tax' and 'public vehicle fees' components of this item (\$5,659,000 in 1971-72) are passed from Consolidated Revenue to the State Highways Trust Fund; and (ii) Racing and Gaming Taxes—prior to 1970-71, part of the 'paid to special funds' item was passed to the racing clubs and the remainder spent on administration of racing. From 1970-71, all Racing and Gaming Taxes paid to special funds were passed to the racing clubs.

State Taxation Collections (a)
('\$000)

Tax	1969-70	1970-71	1971-72
Deceased Persons' Estate Duties	3,263	3,065	3,143
Entertainment Tax	89	90	109
Stamp Duties (excluding Bookmakers' Tickets)—			
Cheques	643	681	722
Bills of Exchange and Lading	3	4	1
Hire-Purchase and Related Agreements	504	569	641
Legal Documents, etc.	1,478	1,413	1,520
Adhesive Revenue Stamps	419	378	418
Insurances	1,034	1,198	1,300
Marketable Securities	129	126	115
Receipts Duty	1,202	936	25
Land Tax	2,633	2,851	2,799
Motor Taxation—			
Paid to—Consolidated Revenue	6,718	7,312	8,058
Special Funds	80	80	80
Tax Paid to Fire Authorities (b)	666	736	988
Liquor Tax and Related Licences—			
Tax	998	1,097	1,162
Publicans' Licences, etc.	19	41	31
Wholesale Licences	113	123	147
Registration of Clubs	5	6	6
Racing and Gaming Taxes—			
Paid to—Consolidated Revenue	883	1,079	1,172
Adjustment (c)	14	—26	—5
Special Funds	511	430	477
Pay-roll Tax .. .. .	..	..	8,249
Hydro-Electric Commission Statutory Levy .. .. .	..	..	804
Sundry Licences—			
Animals' and Birds' Protection Act	37	35	3
Auctioneers and Estate Agents	6	5	5
Other (including Firearms Act)	5	4	5
Total	21,453	22,231	31,977

(a) Collections from all sources of taxation, including amounts paid to special funds.

(b) Paid by insurance companies direct to the Fire Brigades Commission and the Rural Fires Board.

(c) For different accounting periods.

State Land Tax

The rates of land tax on urban land assessed on urban unimproved land values for the year 1971-72 are shown in the following table:

Selected Rates of State Land Tax (a): Urban Land 1971-72
(\$)

Taxable Value (b)	Tax Payable	Taxable Value	Tax Payable
1,000	2	15,000	105
2,000	5	25,000	225
4,000	13	50,000	575
6,000	23	100,000	1,575
10,000	55	150,000	2,825

(a) Tax on unspecified values may be calculated by simple proportion, e.g. tax on \$5,750 equals \$13 plus 1,750/2,000 × (\$23 less \$13) i.e. \$21.75. Land values exceeding \$150,000 were further taxed at 3 cents in the \$ on the excess.

(b) Properties having an unimproved value of less than \$1,000 are not subject to land tax.

The rates of land tax assessed on rural land values for the year 1971-72 are shown in the following table:

Rates of State Land Tax: Rural Land 1971-72 (a)

Unimproved Value (\$)	Taxable Value	Tax Rate
1-10,000	Nil	Nil
10,001-15,000	Three times the unimproved value less \$30,000	As for Urban land with a 25 per cent rebate allowed
15,001 and Over	Unimproved value	As for Urban land with a 25 per cent rebate allowed

(a) Since 1 July 1971 a 25 per cent rebate on land tax payable has been allowed to rural land owners.

The following table summarises the value of urban, rural and composite properties and the tax assessed on each:

State Land Tax: Value of Properties and Tax Assessed (\$'000)

Year	Gross Unimproved Value				Tax Assessed			
	Urban	Rural	Compo- site (a)	Total	Urban	Rural	Compo- site (a)	Total
1967-68 ..	221,645	108,474	21,544	351,664	1,773	238	280	2,291
1968-69 ..	219,577	134,405	21,038	375,020	1,857	247	274	2,379
1969-70 ..	254,833	133,534	24,344	412,710	2,097	269	306	2,672
1970-71 ..	277,257	140,960	24,234	442,451	2,313	277	312	2,903
1971-72 ..	283,154	145,209	26,698	455,062	2,319	(b)224	(b)309	2,852

(a) Properties made up of both urban and rural land.

(b) Decrease due to 25 per cent rebate applicable to rural land.

State Deceased Persons' Estate Duties

The legislation dealing with State Deceased Persons' Estate Duties is contained in Acts No. 42 of 1957 and No. 62 of 1962. The following table gives details of assessments for 1971-72:

State Deceased Persons' Estate Duties
Number of Estates, Net Value and Tax Assessed, 1971-72

Grade of Dutiable Value	Estates		Net Value as Assessed	Total Duty Assessed (a)	Average Duty	
	Examined	Taxable			Per Estate Examined	Per Taxable Estate
\$	no.	no.	\$'000	\$'000	\$	\$
1- 500	115	14	19	1	4.3	35.2
501- 1,000	50	12	39	1	17.5	73.0
1,001- 1,500	74	23	92	1	16.9	54.5
1,501- 2,000	76	23	131	4	47.3	156.3
2,001- 3,000	122	36	301	7	57.4	194.4
3,001- 4,000	112	31	392	9	78.3	282.8
4,001- 5,000	119	81	535	13	110.9	162.9
5,001- 6,000	103	62	551	12	119.4	198.3
6,001- 8,000	200	140	1,377	47	236.4	337.7
8,001- 10,000	139	118	1,225	51	367.4	432.8
10,001- 15,000	217	156	2,535	117	539.5	750.4
15,001- 20,000	126	125	2,056	127	1,011.6	1,019.7
20,001- 30,000	134	132	2,928	243	1,815.7	1,843.2
30,001- 40,000	85	85	2,580	241	2,837.0	2,837.0
40,001- 50,000	41	41	1,590	173	4,228.0	4,228.0
50,001-100,000	110	110	5,672	741	6,732.5	6,732.5
100,001 and Over	62	62	7,856	1,786	28,799.3	28,799.3
Adjustments .. ..	..	..	..	-249	..	..
Total	1,885	1,251	29,878	3,325	..	..

(a) Rates of duty and levels of exemption vary according to the class of beneficiary and the type of asset contained in the estate.

Motor Taxation

The chief components of motor taxation are: (i) motor tax assessed on a power-weight formula; (ii) vehicle registration fees; (iii) drivers' and riders' licences; and (iv) other registration fees mainly related to public vehicles.

Details of motor taxation collections are shown in the following table:

State Motor Taxation
(\$'000)

Particulars	1969-70	1970-71	1971-72
Motor Tax	4,463	4,670	5,294
Public Vehicle Fees (a)	444	443	445
Stamp Duty on—Third Party Insurance	294	315	328
Vehicle Registration	363	388	436
Other Traffic Fees (b)	1,233	1,576	1,635
Total	6,797	7,393	8,139
Paid into Consolidated Revenue Fund	6,718	7,312	8,058
Retained by Transport Commission	80	80	80

(a) Includes public vehicle fees retained by Transport Commission.

(b) Includes registration fees, licences, number plate charges, transfer fees and learners' permits.

'Motor tax' plus most of the item 'public vehicle fees' shown in the above table is paid to the State Highways Trust Fund. (The amount paid over in 1971-72 was \$5,659,000.)

Racing Taxation

Under the *Racing and Gaming Act 1952* and amending legislation, licensed bookmakers pay a turnover commission of $2\frac{1}{2}$ per cent on all bets made. Also racing clubs are required to pay a totalisator tax on turnover at the rate of five per cent in respect of race meetings conducted on race courses in a city area, and $2\frac{1}{2}$ per cent in the case of other meetings. An amendment to the *Racing and Gaming Act* in 1971 provided that from 1 June 1971, instead of issuing betting tickets for telephone bets, bookmakers pay two cents duty to Consolidated Revenue on each telephone bet. Details of racing taxation collections and distribution are shown in the next table:

State Racing Taxation: Collection and Distribution
(\$'000)

Particulars	1969-70	1970-71	1971-72
RACING TAXATION RECEIPTS			
Totalisator Tax	59	61	69
Bookmakers' Commission and Licences	1,140	1,206	1,343
Stamp Duty on Bookmakers' Tickets	210	216	232
Total	1,409	1,483	1,644
DISTRIBUTION OF RACING TAXATION RECEIPTS			
Paid into Consolidated Revenue	883	1,079	1,172
Adjustment (a)	14	—26	—5
Expenses—Racing Commission	46	(b)	(b)
Stipendiary Stewards	14	(b)	(b)
Commission Payable to Racing Clubs	416	430	477
Racing Assistance Fund	37	(b)	(b)
Total	1,409	1,483	1,644

(a) An adjustment item is necessary to reconcile items referring to different accounting periods.

(b) As from 1970-71 these items were financed from Consolidated Revenue.

Following amendment of the *Racing and Gaming Act* 1971 betting turnover tax is now paid into Consolidated Revenue. Previously two charges had been made on the tax: (i) the administrative costs of the Racing Commission; and (ii) a contribution to the racing assistance fund. Both charges were limited to a maximum of \$40,000.

The turnovers on which taxes were levied are as follows:

Betting: Bookmakers' and Totalisator Turnover
('\$000)

Turnover	1969-70	1970-71	1971-72
Licensed Bookmakers	44,899	r47,380	52,871
Totalisator	1,250	r1,287	1,453
Total Betting Turnover	46,149	r48,667	54,323

State Taxation on Lotteries

From 1942 (when the Commonwealth Government became the sole collector of income tax), lotteries conducted from Hobart by Tattersalls (George Adams Estate) were Tasmania's chief source of revenue through State taxation. On 14 July 1954, the promoters transferred their operations to Victoria. A new organisation—Tasmanian Lotteries—was granted a licence and operated until 30 September 1961, when the proprietor surrendered the licence. No operator is now licensed.

In September 1960, the *Racing and Gaming Act* 1952 was amended to permit agreements with other States for the sale of their lottery tickets in Tasmania. Under an agreement with the Victorian Government, Tattersalls were allowed to sell tickets through accredited Tasmanian representatives; the Victorian Government was to pay quarterly to the Tasmanian Government 15½ per cent of the value of subscriptions made as a result of this concession.

For the purpose of Public Finance Statistics, these amounts are classified not as 'taxation' but as 'payment from other States'.

The following table shows the payments made under the interstate agreement since 1964-65:

Payments to Tasmanian Government Based on Sale of Tattersalls Lottery Tickets
(\$)

Year	Amount	Year	Amount
1964-65	146,500	1968-69	141,624
1965-66	152,338	1969-70	116,196
1966-67	140,995	1970-71	(a) 196,038
1967-68	138,372	1971-72	179,343

(a) Includes \$33,858 due for the year 1969-70 but not received until early 1970-71.

Fees and Licences under the Licensing Act

The State raises revenue from hotels, clubs, restaurants and liquor wholesalers by: (i) licensing; and (ii) imposing a levy related to turnover. Originally a liquor tax was charged on liquor purchases by hotels, etc. and on wholesalers' direct sales to the public, the year for calculating taxable values and the year of collection being the same. During 1965-66, the *Licensing Act* 1932 was amended to substitute 'percentage fees' based on similar values except that they were those calculated for the year *preceding* collection.

**Fees and Related Licences Collected Under the Licensing Act
(\$'000)**

Tax or Licence					1967-68	1968-69	1969-70	1970-71	1971-72
Percentage Fees (a)	..	..	..	..	830	944	998	1,097	1,162
Publicans' and Other Licences Under the Licensing Act	..	..	..	..	23	25	19	41	31
Wholesale Licences	..	..	..	..	93	98	113	123	147
Registration of Clubs	..	..	..	..	4	5	5	6	6
Total	..	..	..	..	950	1,072	1,135	1,266	1,346

(a) Based on liquor purchases by hotels and direct sales by wholesalers to the public.

Chapter 6

DEMOGRAPHY

POPULATION

Introduction

Census of 30 June 1971

Detailed analysis of the population according to its principal characteristics as at the Census of 30 June 1971 is included in this Chapter.

Inclusion of Aborigines in Population Statistics

Section 127 of the Commonwealth Constitution required the exclusion of Aborigines from Commonwealth conducted population censuses from 1911 to 1966. As this section was repealed after the 1967 referendum, total population figures have been adjusted after 1961 to include full-blood Aborigines. The effect in this State is very slight.

Historical

In 1803 Lieutenant John Bowen's expedition of 49 persons made the first white settlement at Risdon Cove; at 30 June 1971, Tasmania's population, according to the census count, was 390,413 persons.

The Statistical Tables, Tasmania 1804 to 1823 show the first population record in 1816 when the white inhabitants numbered 1,461, and analysed as 1,032 free settlers, 409 convicts and 20 children of convicts. From the year 1816, there exists a continuous annual record of Tasmania's population.

Source of Population Figures

There are two principal methods by which population figures are obtained: (i) by census enumeration; and (ii) intercensal estimates based on the application of vital and migration statistics to census data. The second method involves taking account of natural increase (excess of births over deaths); and net migration (excess of arrivals over departures) and applying these net figures to information obtained from an earlier census, the result being termed an intercensal estimate. (*Net migration* may be ascertained by two methods: taking account of *all* arrivals and departures; or only of arrivals and departures related to permanent change of place of residence. The former method was used for all estimates up to 30 June 1961, the latter method for later series. In relation to this change, see later section headed 'Changed Method of Estimating Population'.)

Censuses were conducted by the State in 1841, 1847, 1851, 1857, 1861, 1870, 1881, 1891 and 1901; the Commonwealth Statistician became responsible for censuses with the establishment of the Commonwealth Bureau of Census and Statistics and conducted them in 1911, 1921, 1933, 1947, 1954, 1961, 1966 and 1971.

Population from 1820

The table that follows is based on the traditional historical series and has been compiled to show the population at the end of each decade from 1820, the average annual growth in total population for each decade and the contribution made by natural increase.

Historical Summary of Tasmanian Population in Decades

Year	Estimated Population (a)			Average Annual Increase For Decade (b)	
	Males	Females	Persons	In Total Population	From Natural Increase (c)
1820 (d)	4,057	1,343	5,400	..	..
1830 (d)	18,108	6,171	24,279	1,888	..
1840 (d)	32,040	13,959	45,999	2,172	106
1850	44,229	24,641	68,870	2,287	656
1860	49,653	40,168	89,821	2,095	1,214
1870	53,517	47,369	100,886	1,107	1,622
1880	60,568	54,222	114,790	1,390	1,542
1890	76,453	68,334	144,787	3,000	2,496
1900	89,763	83,137	172,900	2,811	2,776
1910	97,026	92,781	189,807	1,691	3,322
1920	106,236	103,189	209,425	1,962	3,649
1930	111,148	108,835	219,983	1,056	3,127
1940	121,911	118,280	240,191	2,021	2,438
1950	140,339	135,563	275,902	3,571	3,768
1960	174,379	169,531	343,910	6,801	5,523
1970	r195,280	r192,440	r387,720	r4,381	5,116

(a) Up to 1900, at 31 December; from 1910, at 30 June.

(b) Decade ending in year shown.

(c) Excess of births over deaths in calendar years.

(d) Imperial military establishment of about 1,000 troops included; excluded after 1842.

Pattern of Net Migration

From the first settlement until 1850, the rapid growth in population was partly due to the British Government's convict transportation policy. After the cessation of transportation in 1853, the immigration rate slowed and natural increase became the more important component of population growth.

By comparing the last two columns in the previous table, it is possible to make an assumption as to whether net migration (excess of arrivals over departures) tended to be positive or negative in any decade.

In the two decades ended 1870 and 1880, for example, natural increase was becoming a more significant factor but the growth of population was checked by negative net migration. Important mining discoveries (e.g. Mt Bischoff, Zeehan and Mt Lyell) brought prosperity to the State, and the two decades ended 1890 and 1900 were characterised by positive net migration.

The main characteristic of the five decades up to 1950 was a persistent loss of population due to negative net migration, the decade most affected ending in 1930. This trend of net migration loss persisted till the end of World War II (1945). The Commonwealth Government's post-war immigration policy and the increasing industrialisation of the State combined to reverse the adverse trend of the previous half-century and the decade ending 1960 was characterised by positive net migration. However, in the decade ending 1970, some loss of population by negative net migration must be inferred.

The next table shows the annual increases in population for the most recent 10-year period:

Annual Increase in Population from 1963

Year Ended 30 June	Persons	Year Ended 30 June	Persons
1963	5,059	1968	r4,405
1964	3,584	1969	r5,244
1965	3,594	1970	r2,827
1966	3,531	1971	2,693
1967	r3,808	1972	1,762

Census Populations from 1841

The following table records the population and masculinity at each census since 1841 and compares the rate of intercensal growth:

Population and Masculinity at Each Census from 1841

Census Date (a)	Population			Average Annual Percentage Rate of Increase (b)	Masculinity (c)
	Males	Females	Persons		
31 Dec. 1841	34,469	16,981	51,450	..	202.99
31 Dec. 1847	45,000	22,313	67,313	4.70	201.68
1 Mar. 1851	44,648	25,482	70,130	1.07	175.21
31 Mar. 1857	46,606	34,886	81,492	2.53	133.60
7 Apr. 1861	49,593	40,384	89,977	2.51	122.80
7 Feb. 1870	52,853	46,475	99,328	1.11	113.72
3 Apr. 1881	61,162	54,543	115,705	1.40	112.14
5 Apr. 1891	77,560	69,107	146,667	2.40	112.23
31 Mar. 1901	89,624	82,851	172,475	1.64	108.17
3 Apr. 1911	97,591	93,620	191,211	1.04	104.24
4 Apr. 1921	107,743	106,037	213,780	1.12	101.61
30 June 1933	115,097	112,502	227,599	0.52	102.31
30 June 1947	129,244	127,834	257,078	0.87	101.10
30 June 1954	157,129	151,623	308,752	2.65	103.63
30 June 1961	177,628	172,712	350,340	1.82	102.85
30 June 1966	187,391	184,045	371,436	1.18	101.82
30 June 1971	r 196,442	r 193,971	r 390,413	1.01	101.27

(a) Imperial military establishments included until 1870, when British troops were withdrawn.

(b) Intercensal increase in total population as compound rate of growth per cent.

(c) Number of males per 100 females.

Population growth varied widely during the nineteenth century. From 1841 to 1847 the annual population increase averaged 4.70 per cent, largely due to the transportation system. Following self-government, the colony entered a period of depression and the growth rate fell until the development of mining at the end of the century. The lowest growth rates in this century were associated with the period 1921-1947; and the highest rate with the period 1947-1954 when the State benefited from an influx of European migrants.

Comparison with other States

The following table compares the Tasmanian population at censuses from 1901 with that of other States and Territories (full-blood Aborigines are included as from 1966):

Australia: Census Populations of States and Territories (a)
(^{'000 Persons})

State or Territory	1901	1933	1947	1954	1961	1966 (b)	1971 (b) r
N.S.W.	1,355	2,601	2,985	3,424	3,917	4,238	4,601
Victoria	1,201	1,820	2,055	2,452	2,930	3,220	3,502
Queensland	498	947	1,106	1,318	1,519	1,674	1,827
S.A.	359	581	646	797	969	1,095	1,174
W.A.	184	439	502	640	737	848	1,030
Tasmania	172	228	257	309	350	371	390
N.T.	5	5	11	17	27	57	86
A.C.T. (c) .. ..	..	9	17	30	59	96	144
Australia	3,774	6,630	7,579	8,987	10,508	11,599	12,756

(a) Censuses of 1911 and 1921 are not shown.

(b) Includes full-blood Aborigines.

(c) Part of N.S.W. prior to 1911.

The next table shows the average annual rates of increase:

Australia: Average Annual Rate of Increase of Population During Intercensal Periods (a)
(Per Cent)

State or Territory	1921-33	1933-47	1947-54	1954-61	1961-66 r	1966-71 r
N.S.W.	1.76	0.99	1.98	1.94	1.51	1.66
Victoria	1.42	0.87	2.56	2.58	1.80	1.69
Queensland	1.86	1.11	2.53	2.04	1.86	1.77
S.A.	1.31	0.76	3.05	2.83	2.29	1.40
W.A.	2.29	0.97	3.51	2.03	2.63	3.97
Tasmania	0.52	0.87	2.65	1.82	1.18	1.01
N.T.	1.87	5.93	6.12	r 7.37	10.41	8.86
A.C.T.	10.71	4.65	8.70	9.93	7.75	8.45
Australia	1.63	0.96	2.46	2.26	1.88	1.92

(a) Full-blood Aborigines excluded for 1961-66 and earlier periods but included for 1966-71.

Intercensal Adjustment

Earlier, mention was made of the method for calculating intercensal estimates of population by taking account of recorded natural increase and recorded net migration. The following two tables show these factors in successive intercensal periods from 1921; 'arrivals' and 'departures' in the first table refer to both short-term and long-term movements.

Analysis of Intercensal Increase in Tasmanian Population
(i) Recorded Natural Increase and Recorded Net Migration

Intercensal Period	Births	Deaths	Natural Increase	Arrivals	Departures	Net Migration
4.4.1921 to 30.6.1933 (a)	61,955	25,174	36,781	507,209	535,780	-28,571
30.6.1933 to 30.6.1947 ..	73,130	34,767	38,363	482,577	493,305	-10,728
30.6.1947 to 30.6.1954 ..	51,615	17,557	34,058	870,768	845,009	+25,759
30.6.1954 to 30.6.1961 ..	59,282	18,631	40,651	1,070,297	1,065,254	+5,043
30.6.1961 to 30.6.1966 ..	41,276	14,786	26,490	1,071,892	1,077,942	-6,050
30.6.1966 to 30.6.1971 ..	r 40,474	r 16,297	r 24,177	1,467,075	1,471,663	-4,588

(a) Numbers recorded from the March quarter of 1921.

(ii) Census Population, Intercensal Records and Intercensal Adjustment

Census Date	Population	Numbers Recorded Since Previous Census		Intercensal Adjustment (a)
		Natural Increase	Net Migration	
4.4.1921 ..	213,780	36,448	-10,265	- 3,614
30.6.1933 ..	227,599	36,781	-28,571	+ 5,609
30.6.1947 ..	257,078	38,363	-10,728	+ 1,844
30.6.1954 ..	308,752	34,058	+25,759	- 8,143
30.6.1961 ..	350,340	40,651	+ 5,043	- 4,106
30.6.1966 ..	371,436	26,490	- 6,050	+ 656
30.6.1971 ..	r 390,413	r 24,177	- 4,588	r - 612

(a) For definition, see following section; adjustment is to reconcile increase as disclosed by census counts with net increase recorded in second and third columns.

In general, two population estimates are made for any specific date: (i) *original* estimates for dates subsequent to a census and made before another census is taken; and (ii) *revised* estimates for each newly-completed intercensal period to adjust for the difference between the new census result and the comparable estimate. Thus, all original estimates of population for the intercensal periods from 1911 to 1971 have been revised to reconcile with the results of successive censuses from 1921 to 1971 and can be regarded as final.

Population Estimates, Intercensal Years

The following are estimates of State population at 30 June and 31 December for successive years since 1956:

Estimated Population, 30 June and 31 December

Year	At 30 June			At 31 December		
	Males	Females	Persons	Males	Females	Persons
1956	162,196	156,274	318,470	168,695	162,645	331,340
1957	165,940	160,190	326,130	172,186	166,621	338,807
1958	169,123	163,943	333,066	174,465	169,433	343,898
1959	172,097	167,279	339,376	178,109	173,240	351,349
1960 (a)	174,379	169,531	343,910	180,511	175,458	355,969
1961 (a) (b)	177,628	172,712	350,340	178,864	174,394	353,258
1962	179,966	175,702	355,668	181,085	177,002	358,087
1963	182,439	178,288	360,727	183,330	179,469	362,799
1964	184,074	180,237	364,311	185,051	181,457	366,508
1965	185,789	182,116	367,905	186,483	183,125	369,608
1966 (b)	187,391	184,045	371,436	r188,180	r185,129	r373,309
1967 r	189,195	186,049	375,244	190,369	187,472	377,841
1968 r	191,288	188,361	379,649	192,871	190,184	383,055
1969 r	193,888	191,005	384,893	194,788	192,210	386,998
1970 r	195,280	192,440	387,720	196,363	193,890	390,253
1971 r (b)	196,442	193,971	390,413	197,444	195,380	392,824
1972	197,201	194,974	392,175	198,461	197,091	395,552

(a) Break in series; see following paragraphs.

(b) Figures at 30 June as recorded at Census.

'De Facto' and 'De Jure'

Australian censuses allot persons to the State where they happen to be at the census date (*de facto* basis) and not to the State where they normally reside (*de jure* basis); net migration, as defined and measured prior to 1961, was also on a *de facto* basis. Thus the December estimates in the table for dates prior to 1961 are consistently higher than those for the preceding June by anything from 10,000 to 15,000 persons, due to the seasonal tourist influx.

Changed Method of Estimating Population

Until the Census of 1966, the quarterly intercensal population of each State had been estimated using three components: (i) the previous census population; (ii) accumulated natural increase; and (iii) accumulated net migration. In this calculation, net migration was the total of all arrivals *less* all departures, recorded for shipping and aircraft (Tasmania) and for shipping, aircraft, rail and omnibus movements (other States); it therefore included overseas and interstate travel irrespective of purpose.

The changed method of estimation, introduced after the 1966 Census, still relies on the same three components but defines and measures net migration in a different way, so that holiday, business or other similar short-term movements between States are eliminated. *Intercensal estimates for the period 1961 to 1971 have been revised in accordance with the new method, and incorporate the changed concept of net migration.*

In the changed method, the State population is estimated by adding to the previous census population the natural increase and the allocation of the net gain by overseas migration for that State; gains or losses that result from movements between States are also taken into account, in so far as they are recorded as transfers of residence under child endowment procedures or Commonwealth electoral procedures, supplemented by the results of any sample surveys. Revised estimates subsequent to the 1961 Census omit the effect of holiday, business or other similar short-term movements between the States.

Mean Population

Mean populations are calculated for twelve-month periods to provide a satisfactory average basis for calculations requiring allowance for the continuous change in population figures during such periods. From 1901 onwards, the mean population for any year has been calculated by the formula:

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a* is the population at the end of the quarter immediately preceding the year and *b*, *c*, *d* and *e* are the populations at the end of the quarters making up the year under consideration (e.g. in the case of a mean population for the calendar year 1972, the populations in the formula represented by *a*, *b*, *c*, *d* and *e* are those at the following dates: 31.12.1971, 31.3.1972, 30.6.1972, 30.9.1972 and 31.12.1972).

The following table shows the State's mean population on two bases: (i) for financial years; and (ii) for calendar years.

Estimated Mean Population, Financial and Calendar Years

Year	Year Ended—		Year	Year Ended—	
	30 June	31 December		30 June	31 December
1962	353,175	355,682	1968 r	377,582	379,916
1963	358,180	360,590	1969 r	382,710	385,079
1964	362,758	364,554	1970 r	386,665	388,180
1965	366,366	367,970	1971 r	389,739	391,242
1966	369,600	371,483	1972	392,399	393,183
1967 r	373,321	375,397			

Arrivals and Departures

Earlier in this Chapter, reference was made to net migration as one factor determining the growth of the State population. Net migration, on a *de facto* basis for any period, is the difference between arrivals and departures, such movements being reported by the shipping companies and airlines. 'Arrivals' in the following table applies to all persons arriving in Tasmania from overseas or from other Australian States; it includes Tasmanians returning home. Similarly, 'departures' applies to all persons leaving Tasmania for overseas or for other Australian States; it includes visitors returning home from Tasmania. The table below shows annual arrivals and departures and also quarterly arrivals and departures for recent years, but the intercensal adjustments referred to in an earlier section have not been applied to the figures.

Recorded Arrivals and Departures: Tasmania (a)

Year	Arrivals	Departures	Quarter	Arrivals	Departures
1930	40,291	41,110	1969—March Qtr ..	83,019	88,119
1935	42,470	42,912	June Qtr ..	68,160	76,073
1940	51,672	53,644	September Qtr ..	59,045	59,574
1945	<i>n.a.</i>	<i>n.a.</i>	December Qtr ..	85,962	73,303
1950	127,709	122,333	1970—March Qtr ..	93,497	100,102
1955	137,834	137,144	June Qtr ..	72,885	79,630
1960	182,537	183,513	September Qtr ..	67,347	68,957
1961	186,423	184,165	December Qtr ..	87,138	74,760
1962	185,268	186,023	1971—March Qtr ..	94,843	100,923
1963	198,443	199,918	June Qtr ..	81,969	87,968
1964	219,930	223,380	September Qtr ..	68,683	70,921
1965	248,964	249,617	December Qtr ..	94,668	80,830
1966	257,463	256,068	1972—March Qtr ..	104,678	113,697
1967	270,934	271,812	June Qtr ..	76,164	81,387
1968	276,798	276,856	September Qtr ..	71,955	71,769
1969	296,186	297,069	December Qtr ..	103,892	88,659
1970	320,867	323,449			
1971	340,163	340,642			
1972	356,689	355,512			

(a) Arrivals and departures on a *de facto* basis.

It should be noted that the data shown in the preceding table are compiled only on the basis of individual journeys. There is no classification of the arrival or departure figures into 'Tasmanians' and 'others' nor is any information obtained about the type of movement involved i.e. whether the arrival or departure is of a permanent, long-term or short-term nature. It therefore follows that while increased tourist movements have made a principal contribution to the growth in the arrival and departure figures, as shown in the table, it is not possible to isolate tourist movements from other movements to and from Tasmania.

If annual arrivals and departures are added, the result may conveniently be termed 'annual movements', and a comparison of 'annual movements' over the years gives some indication of the degree to which tourism and other travel have affected the State. Thus in 1901, the year of Federation, annual arrivals and departures together totalled 51,000; in 1913, 91,800; in 1931, 58,500; in 1939, 120,200; and in 1972, over 712,000. The increase in 'annual movements' since World War II is largely attributable to the growing use of air travel and roll-on roll-off ferries. Another factor has been industrial legislation providing for paid holidays; this has not only increased the tourist inflow but also has resulted in more Tasmanians taking holidays in other States.

The quarterly figures show a marked seasonal pattern with arrivals at their maximum in the spring and summer quarters (those ending December and March). Net migration figures on a *de facto* basis also show a seasonal pattern with substantial deviations from the quarterly average, approximating *plus* 11,000 to 13,000 persons in the December quarter; they also reflect the tourist outflow in the March quarter.

Population in Local Government Areas

The next table shows the population in cities, municipalities, statistical divisions and for the two urban areas at successive censuses and also gives post-censal estimates:

Population in Local Government Areas and Statistical Divisions at 30 June

Local Government Area (Statistical Division and Sub-division in Bold Type)	Census			Estimated
	1961	1966	1971 ^r	1972
Hobart (H)	54,021	53,257	52,426	52,400
Glenorchy (H)	35,682	39,053	42,651	42,900
Clarence (H)	23,140	30,236	37,104	37,940
Brighton (H) (S)	2,115	2,207	2,333	2,400
Kingborough (H) (S)	10,025	10,322	10,815	11,140
New Norfolk (H) (S)	10,217	10,315	10,613	10,610
Sorell (H) (S)	2,878	3,309	3,636	3,690
Bothwell (S)	1,288	1,008	813	750
Bruny (S)	504	400	311	300
Esperance (S)	3,436	3,740	3,508	3,410
Glamorgan (S)	1,128	1,125	1,120	1,140
Green Ponds (S)	969	880	881	850
Hamilton (S)	4,178	4,329	4,060	4,040
Huon (S)	5,460	5,264	4,756	4,660
Oatlands (S)	2,691	2,501	2,132	2,060
Port Cygnet (S)	2,754	2,550	2,070	1,980
Richmond (S)	1,673	1,658	1,579	1,560
Spring Bay (S)	1,155	1,205	1,413	1,520
Tasman (S)	1,108	1,126	1,035	960
HOBART (a)	164,422	141,311	153,216	154,720
SOUTHERN (a)		33,174	30,040	29,590
Launceston	38,118	37,217	35,107	34,780
Beaconsfield	8,550	9,983	10,970	11,170
Deloraine	5,574	5,205	4,807	4,780
Evandale	1,608	1,554	1,462	1,460
George Town	3,677	5,101	6,029	6,120
Lilydale	6,744	7,841	8,308	8,430
Longford	6,762	5,354	5,145	5,070
St Leonards	11,032	13,660	16,093	16,260
Westbury	4,581	4,964	4,863	4,860
Tamar	86,646	90,879	92,784	92,930
Campbell Town	1,893	1,753	1,641	1,590
Fingal	4,475	3,791	3,441	3,370
Flinders	1,407	1,234	968	950
Portland	1,274	1,391	1,497	1,500
Ringarooma	3,056	2,866	2,474	2,450
Ross	672	617	541	530
Scottsdale	3,417	3,628	3,615	3,580
North Eastern	16,194	15,280	14,177	13,970
NORTHERN	102,840	106,159	106,961	106,900
Burnie	16,745	18,611	19,954	20,240
Circular Head	7,733	7,884	7,981	7,980
Devonport	14,276	16,758	19,802	20,290
Kentish	4,167	5,614	5,325	4,790
King Island	2,784	2,462	2,793	2,790
Latrobe	4,367	4,807	5,115	5,120
Penguin	4,673	4,677	4,791	4,840
Ulverstone	9,365	10,150	11,052	11,170
Wynyard	8,835	9,564	10,600	10,770
North Western	72,945	80,527	87,413	87,990

Population in Local Government Areas and Statistical Divisions at 30 June—*continued*

Local Government Area (Statistical Division and Sub-division in Bold Type)	Census			Estimated
	1961	1966	1971 ^r	1972
Gormanston	507	540	489	450
Queenstown	4,624	4,393	5,123	5,100
Strahan	565	470	447	440
Waratah	367	698	1,940	2,000
Zeehan	3,191	3,489	4,369	4,570
Western	9,254	9,590	12,368	12,560
MERSEY-LYELL ..	82,199	90,117	99,781	100,550
Migratory	879	675	415	420
TASMANIA	350,340	371,436	390,413	392,180

(a) Symbols above indicate the statistical division in which the local government area is located: (H) = Hobart Division; (S) = Southern Division; (H) (S) = part of municipality in Hobart Division and remainder in Southern Division.

Distinction Between Urban and Rural

After the Censuses of 1954 and 1961, the Commonwealth Statistician published a population classification using the terms 'metropolitan', 'urban' and 'rural'. Delineation of the urban boundaries was subjective and the methods used were not completely comparable between States.

In order to develop an objective definition of 'urban' and 'rural' areas, Dr G. J. R. Linge of the Australian National University was commissioned by the Commonwealth Statistician to make a report.

At the 27th Conference of Statisticians in 1965, the following resolutions relating to the delimitation of urban areas based substantially on Dr Linge's report were passed:

- (i) (a) That the concept of an *inner* and *outer* boundary around each of the State capitals and other cities with an urban population of at least 75,000 and a regional population of at least 100,000 be adopted; and
- (b) that the inner boundary be drawn to delimit the extent of urban development at each Census and it should, therefore be a moving boundary to be adjusted after each Census, except that any State may extend the inner boundary during intercensal years to encompass significant and well-defined peripheral population growth; and
- (c) that the outer boundary be designed to contain the anticipated urban development of a city for a period of at least 20 to 30 years.
- (ii) (a) That an urban boundary be defined as soon as possible for all other settlements with a population of 1,000 or more; and
- (b) that State, Statistical Division, Local Government Area, and other boundaries be ignored in delimiting these urban areas.
- (iii) That urban boundaries be defined so as to include all contiguous census collectors' districts which have a population density of 500 or more per square mile (subject to certain special rules).

Effect of Change in Tasmania

The resolution previously quoted as (i) affected only one centre in Tasmania since only the Hobart area has 'an urban population of at least 75,000 persons and a regional population of at least 100,000'. Resolutions (ii) and (iii) affected all other cities and towns, including Launceston. The concept of ringing the capital city with two statistical boundaries, an inner and an outer, was discussed in depth in the 1968 and 1969 *Year Books*. The following section broadly outlines the current situation in Tasmania.

Population Centred on Hobart

The Basic Criterion (1966 and 1971 Censuses)

The basic criterion adopted for the delimitation of urban boundaries was *population density* as applied to small areas. As urbanisation increases, the change from rural to urban uses is accompanied by increasing population density. Extensive field investigations have shown that areas at the fringe, which have largely lost their rural characteristics and are developing towards urbanisation, have densities varying over only a small range. The adoption of a specific density from within that range provided a criterion which adequately delimits urban boundaries, and which can be applied objectively, uniformly, easily and without undue delay. *The criterion adopted was a density of 500 or more persons per square mile.* The geographic units classified according to the density criterion are census collectors' districts, the smallest units available. These areas vary in size and shape, but as far as possible they have been designed to ensure that significant urban development in large rural collectors' districts is split off as a separate collectors' district.

Rigid application of the 500-person density criterion in every case would have created non-urban enclaves in obviously urban areas, e.g. sports grounds, industrial sites, etc., so special rules had to be formulated. The special rules are set out in the 1968 *Year Book*.

The Two-Boundary Concept

For the purposes of presenting the results of the 1966 and 1971 Censuses, *two* boundaries around Hobart were drawn:

(i) a fixed *Outer Boundary (Hobart Statistical Division)* enclosing the area of expected urban growth during the next 20 to 30 years (broadly this comprises the cities of Hobart and Glenorchy, Clarence municipality and parts of Kingborough, New Norfolk, Brighton and Sorell municipalities); and

(ii) a flexible *Inner Boundary (Urban Hobart)* which moves outwards towards the Outer Boundary as urbanisation develops. This area in 1966 comprised the continuous area of urban development from Taroona in the south to Granton in the north and the eastern shore suburbs from Risdon Vale southward to Tranmere (the area includes only contiguous *urban* portions of the cities of Hobart and Glenorchy and of the municipalities of Clarence and Kingborough). In 1971 Rokeby was added to the area.

A detailed account of the *Two-Boundary Concept* was included in the 1968 and 1969 *Year Books*.

The Hobart Statistical Division

The next table shows the population of the components of the *Hobart Statistical Division* at the Census of 1971, and also gives comparative figures from the Census of 1966.

Population of Hobart Statistical Division

Components	Census, 30 June 1966	Census, 30 June 1971 ^r			Intercensal Increase	
	Persons	Males	Females	Persons	Persons	Per Cent
Urban Hobart	119,469	64,011	65,917	129,928	10,459	8.75
Other Urban Centres—						
Urban New Norfolk ..	5,770	3,451	3,388	6,839	1,069	18.53
Urban Kingston ..	3,263	1,838	1,850	3,688	425	13.02
Urban Sorell-Midway Pt	1,652	1,013	1,016	2,029	377	22.82
Urban Lauderdale ..	916	666	663	1,329	413	45.09
Total Other Urban	11,601	6,968	6,917	13,885	2,284	19.69
Total Urban	131,070	70,979	72,834	143,813	12,743	9.72
Rural	10,241	4,826	4,577	9,403	-838	-8.18
Total Hobart Statistical Division..	141,311	75,805	77,411	153,216	11,905	8.42

Population Centred on Launceston

Population of Launceston and Suburbs

In 1891 the Tasmanian Government Statistician first published figures for an area called *Launceston and Suburbs* which comprised Launceston City plus the urban areas of surrounding municipalities, a practice continued until 1966. In 1966, to coincide with the population census, the new terminology *Urban Launceston* was adopted in lieu of *Launceston and Suburbs*; however, at the time of this change, the *Urban Launceston* boundary differed very little from that of the former *Launceston and Suburbs*.

Urban Launceston's population at 30 June was: 1961 Census, 56,465 persons; 1966 Census 60,456; 1971 Census, 62,241.

Urban and Rural Population of Tasmania

The next table has been compiled to show a dissection of each local government area into urban and rural components; *Urban Hobart* and *Urban Launceston* are specified separately but it should be noted that these two areas are identical in statistical concept with other urban localities.

The localities classified as urban had to have populations exceeding 1,000 persons and a population density of 500 or more per square mile but special rules applied to holiday resorts where housing density was taken into account. The urban-rural dissection for Tasmania follows:

Population in Local Government Areas Classified as Urban and Rural at Census, 30 June 1971^r

Local Government Area (Statistical Division and Sub-division in Bold Type)	Total	Rural	Urban Hobart	Urban Launceston	Other Urban (a)
Hobart (H)	52,426	685	51,741	..	..
Glenorchy (H)	42,651	985	41,666	..	..
Clarence (H)	37,104	2,112	33,663	..	1,329
Brighton (H) (S) ..	2,333	2,333	..	..	..
Kingborough (H) (S) ..	10,815	4,269	2,858	..	3,688
New Norfolk (H) (S) ..	10,613	3,774	..	..	6,839
Sorell (H) (S)	3,636	1,607	..	..	2,029
Bothwell (S)	813	813	..	..	..
Bruny (S)	311	311	..	..	..
Esperance (S)	3,508	3,508	..	..	..
Glamorgan (S)	1,120	1,120	..	..	..
Green Ponds (S)	881	881	..	..	..
Hamilton (S)	4,060	4,060	..	..	..
Huon (S)	4,756	4,756	..	..	..
Oatlands (S)	2,132	2,132	..	..	..
Port Cygnet (S)	2,070	2,070	..	..	..
Richmond (S)	1,579	1,579	..	..	..
Spring Bay (S)	1,413	1,413	..	..	..
Tasman (S)	1,035	1,035	..	..	..
HOBERT (b) ..	153,216	9,403	129,928	..	13,885
SOUTHERN (b) ..	30,040	30,040	..	..	..
Launceston	35,107	..	..	35,107	..
Beaconsfield	10,970	5,312	..	4,789	869
Deloraine	4,807	2,995	..	..	1,812
Evandale	1,462	1,403	..	59	..
George Town	6,029	1,191	..	..	4,838
Lilydale	8,308	2,229	..	6,079	..
Longford	5,145	2,320	..	..	2,825
St Leonards	16,093	911	..	15,182	..
Westbury	4,863	3,838	..	1,025	..
Tamar	92,784	20,199	..	62,241	10,344

Population in Local Government Areas Classified as Urban and Rural at Census, 30 June 1971r—continued

Local Government Area (Statistical Division and Sub-division in Bold Type)	Total	Rural	Urban Hobart	Urban Launceston	Other Urban (a)
Campbell Town	1,641	1,641	..	..	..
Fingal	3,441	3,441	..	..	..
Flinders	968	968	..	..	..
Portland	1,497	1,497	..	..	..
Ringarooma	2,474	2,474	..	..	..
Ross	541	541	..	..	..
Scottsdale	3,615	1,800	..	..	1,815
North Eastern ..	14,177	12,362	..	..	1,815
NORTHERN ..	106,961	32,561	..	62,241	12,159
Burnie	19,954	2,635	..	..	17,319
Circular Head	7,981	4,773	..	..	3,208
Devonport	19,802	1,619	..	..	18,183
Kentish	5,325	5,325	..	..	..
King Island	2,793	2,793	..	..	..
Latrobe	5,115	2,651	..	..	2,464
Penguin	4,791	2,497	..	..	2,294
Ulverstone	11,052	3,043	..	..	8,009
Wynyard	10,600	3,826	..	..	6,774
North Western ..	87,413	29,162	..	..	58,251
Gormanston	489	489	..	..	..
Queenstown	5,123	98	..	..	5,025
Strahan	447	447	..	..	..
Waratah	1,940	774	..	..	1,166
Zeehan	4,369	518	..	..	3,851
Western	12,368	2,326	..	..	10,042
MERSEY-LYELL ..	99,781	31,488	..	..	68,293
Migratory	415	..	..	..	..
TASMANIA ..	390,413	103,492	129,928	62,241	94,337

(a) Details of 'Other Urban' localities and of Urban Hobart and Urban Launceston are given in the next section.

(b) Symbols above indicate the Statistical division in which the local government area is located: (H) = Hobart Division; (S) = Southern Division; (H)(S) = part of municipality in Hobart Division and remainder in Southern Division.

Details of Urban Localities

The next table shows localities classified as urban (but excludes Urban Hobart and Urban Launceston):

Populations in Localities Classified as Urban (Excluding Urban Hobart and Urban Launceston) at Census, 30 June 1971r

Locality Classed as Urban (a)	Local Government Area (b)	Persons in Urban Locality	Locality Classed as Urban (a)	Local Government Area (b)	Persons in Urban Locality
Beauty Point (c) ..	Beaconsfield ..	869	Penguin	Penguin	2,294
Burnie-Somerset ..	Burnie	17,319	Perth	Longford ..	1,112
Burnie-Somerset ..	Wynyard	2,768	Queenstown ..	Queenstown ..	5,025
Deloraine	Deloraine	1,812	Rosebery	Zeehan	2,380
Devonport	Devonport ..	18,183	Savage River ..	Waratah ..	1,166
George Town	George Town ..	4,838	Scottsdale ..	Scottsdale ..	1,815
Kingston	Kingborough ..	3,688	Smithton ..	Circular Head ..	3,208
Latrobe	Latrobe	2,464	Sorell-Midway Pt	Sorell	2,029
Lauderdale	Clarence	1,329	Ulverstone ..	Ulverstone ..	8,009
Longford	Longford	1,713	Wynyard	Wynyard	4,006
New Norfolk	New Norfolk ..	6,839	Zeehan	Zeehan	1,471

(a) Population exceeding 1,000 persons and with a population density of 500 or more per square mile.

(b) See previous table for total population of Local Government Area.

(c) Defined as urban under special rules relating to holiday resort areas.

An analysis of the Hobart Statistical Division according to its urban and rural areas follows:

Population of the Hobart Statistical Division at Census, 30 June 1971^r

Local Government Area	Total	Rural	Urban Hobart	Other Urban	Locality Classified as Other Urban
Hobart	52,426	685	51,741	..	..
Glenorchy	42,651	985	41,666	..	..
Clarence	37,104	2,112	33,663	1,329	Lauderdale
Brighton (Part)	1,336	1,336	..	..	..
Sorell (Part)	2,575	546	..	2,029	Sorell-Midway Point
Kingborough (Part)	9,781	3,235	2,858	3,688	Kingston
New Norfolk (Part)	7,343	504	..	6,839	New Norfolk
Total Hobart Division	153,216	9,403	129,928	13,885	..

A similar analysis of Launceston and the local government areas enclosing it appears below:

Population of Launceston and Surrounding Local Government Areas at Census, 30 June 1971^r

Local Government Area	Total	Rural	Urban Launceston	Other Urban	Locality Classified as Other Urban
Launceston	35,107	..	35,107	..	..
Beaconsfield	10,970	5,312	4,789	869	Beauty Point (a)
Evandale	1,462	1,403	59	..	..
Lilydale	8,308	2,229	6,079	..	..
St Leonards	16,093	911	15,182	..	..
Westbury	4,863	3,838	1,025	..	..
Total	(b)	(b)	(b) 62,241	(b)	..

(a) Defined as *urban* under the special rules relating to *holiday resort areas*.

(b) Included as part of Tamar Statistical Sub-division.

Australian Comparison

The next table compares the proportions of urban and rural population of the Australian States at the Census of 30 June 1971. (In the table, Urban Launceston is included with 'Other Urban'.)

Proportion of Urban and Rural Population, Australian States and Territories at Census, 30 June 1971 (Per Cent)

Classification	Proportion of Total Population of State or Territory								
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Urban—									
Capital City	59.20	68.33	44.80	69.02	62.26	33.29	41.26	98.00	60.32
Other	29.35	19.39	34.56	15.59	19.11	40.11	23.16	..	25.23
Rural	11.32	12.22	20.43	15.24	18.37	26.49	35.21	2.00	14.32
Migratory	0.13	0.06	0.21	0.15	0.26	0.11	0.37	..	0.13
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Tasmania's proportion of population in the 'capital city' urban area is less than for any other State. This is explained by the fact that Tasmania has a second major urban centre, Launceston, in the north.

CHARACTERISTICS OF THE POPULATION

Age Distribution

In addition to giving the number of the State's population, the Census of 30 June 1971 provided a variety of data on characteristics of that population.

The table which follows shows the age distribution at 30 June 1971 and changes since 1966:

Age Distribution of the Population at Census, 30 June 1971

Age Last Birthday (Years)	Males	Females	Persons			
			Total	Proportion of Total	Intercensal Increase (a)	
					Number	Per Cent (b)
0-4	20,103	19,222	39,325	Per Cent 10.07	-781	-1.95
5-9	20,667	19,688	40,355	10.34	-1,332	-3.20
10-14	21,318	20,325	41,643	10.67	3,272	8.53
15-19	18,179	17,697	35,876	9.19	991	2.84
20-24	16,059	15,708	31,767	8.14	6,106	23.79
25-29	13,515	12,865	26,380	6.76	3,096	13.30
30-34	11,950	11,364	23,314	5.97	2,154	10.18
35-39	10,947	10,478	21,425	5.49	-1,544	-6.72
40-44	11,752	10,939	22,691	5.81	-834	-3.55
45-49	11,761	11,295	23,056	5.91	2,072	9.87
50-54	10,089	9,896	19,985	5.12	-113	-0.56
55-59	9,388	9,126	18,514	4.74	1,968	11.89
60-64	7,429	7,616	15,045	3.85	1,961	14.99
65-69	5,483	5,774	11,257	2.88	882	8.50
70-74	3,638	4,825	8,463	2.17	430	5.35
75-79	2,215	3,565	5,780	1.48	-64	-1.10
80-84	1,299	2,259	3,558	0.91	448	14.41
85-89	503	990	1,493	0.38	207	16.10
90-94	129	280	409	0.10	58	16.52
95-99	16	56	72	0.02	4	5.88
100 and Over	2	3	5	..	-3	-37.50
Total	196,442	193,971	390,413	100.00	18,978	5.11

(a) Increase 1966-1971; decrease indicated by a minus (-) sign.

(b) Increase (or decrease) expressed as a percentage of each age group total recorded in 1966.

An analysis of the change in the composition of the major age groups follows:

Age Distribution of Major Age Groups, 1966 and 1971

Particulars	Age Group (Years)			Total
	Under 18	18-64	65 and Over	
Males—				
30 June 1966 no.	72,021	103,006	12,363	187,390
30 June 1971 no.	73,343	109,814	13,285	196,442
Percentage Increase (1966-1971) %	1.84	6.61	7.46	4.83
Females—				
30 June 1966 no.	69,220	98,113	16,712	184,045
30 June 1971 no.	70,393	105,826	17,752	193,971
Percentage Increase (1966-1971) %	1.69	7.86	6.22	5.39

Marital Status

The next table compares the marital status of the population at the Censuses of 1966 and 1971.

Marital Status of the Population

Particulars	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of Total			Total	Proportion of Total
		per cent				per cent
Never Married—						
Under 15 Years of Age	120,164	32.35	62,088	59,235	121,323	31.08
15 Years and Over ..	64,365	17.33	37,768	27,445	65,213	16.70
Total	184,529	49.68	99,856	86,680	186,536	47.78
Married	163,131	43.92	88,698	88,359	177,057	45.35
Married but Permanently Separated	4,290	1.15	2,314	2,484	4,798	1.23
Divorced	2,526	0.68	1,678	1,723	3,401	0.87
Widowed	16,959	4.57	3,896	14,725	18,621	4.77
Total	371,435	100.00	196,442	193,971	390,413	100.00

Birthplaces of the Population

The following table is of particular interest in view of the Commonwealth's post-war policy of actively encouraging migration from Europe. It shows birthplaces of the population at the Census of 1971 and at the previous Census of 1966:

Birthplaces of the Population

Birthplace	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of Total			Total	Proportion of Total
		per cent				per cent
Australia and Territories	335,672	90.37	174,629	175,648	350,277	89.72
New Zealand	1,237	0.33	806	744	1,550	0.40
United Kingdom and Eire	19,101	5.14	11,480	11,033	22,513	5.77
Germany	2,016	0.54	1,109	960	2,009	0.51
Greece	755	0.20	520	391	911	0.23
Italy	1,448	0.39	928	557	1,485	0.38
Netherlands	3,367	0.91	1,709	1,474	3,183	0.82
Poland	1,567	0.42	964	492	1,456	0.37
Yugoslavia	821	0.22	739	281	1,020	0.26
Other European Countries	2,890	0.78	1,764	1,033	2,797	0.72
Total Europe ..	31,965	8.61	19,213	16,161	35,374	9.06
Other Birthplaces ..	2,561	0.69	1,794	1,418	3,212	0.82
Total	371,435	100.00	196,442	193,971	390,413	100.00

The analysis of the birthplaces of the population at 30 June 1971 can be viewed broadly as a measure of the degree to which migration from overseas has contributed to population growth over a long period.

The next table contrasts the position in the various States and Territories at 30 June 1971:

Australia: Birthplaces of the Population at Census, 30 June 1971
Proportion of Population of State or Territory According to Birthplace
(Per Cent)

Birthplace	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Australia and Territories	81.06	77.95	87.85	76.54	73.43	89.72	80.64	74.76	80.33
New Zealand	0.79	0.46	0.77	0.25	0.58	0.40	1.29	0.86	0.62
United Kingdom and Eire	7.45	7.75	6.45	11.97	14.29	5.77	6.63	9.94	8.33
Other European Countries	8.01	11.60	3.57	9.97	8.46	3.29	7.58	11.47	8.47
Other	2.69	2.24	1.36	1.28	3.23	0.82	3.85	2.97	2.25
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

It will be observed that the Tasmanian pattern differs significantly from that of the other States and Territories, except Queensland.

The following table shows particulars for Tasmania and Australia of the period of residence in Australia of persons born outside Australia:

Period of Residence in Australia of Persons Born Outside Australia at Census, 30 June 1971

Period of Residence (Years)	Tasmania		Australia	
	Persons		Persons	
	Total	Proportion of Total	Total	Proportion of Total
Born Outside Australia—		per cent		per cent
Under 1 Year	2,371	0.61	185,377	1.45
1 and under 2	2,134	0.55	165,599	1.30
2 and under 3	2,027	0.52	141,619	1.11
3 and under 4	1,587	0.41	103,369	0.81
4 and under 5	1,547	0.40	99,941	0.78
5 and under 10	5,609	1.44	401,636	3.15
10 Years and Over	23,737	6.08	1,313,138	10.29
Not Stated	1,251	0.32	168,639	1.32
Total Born Outside Australia	40,263	10.31	2,579,318	20.22
Born in Australia	350,150	89.69	10,176,320	79.78
Total	390,413	100.00	12,755,638	100.00

During the intercensal period 1966-1971, the number of persons born outside Australia in the Tasmanian and Australian populations increased by 12.3 per cent and 21.0 per cent respectively. This can be related to the Commonwealth's policy of encouraging migration.

The previous table shows that this policy has had less effect upon the Tasmanian population than upon the Australian population.

Nationality of the Population

It should be noted that the Federal *Nationality and Citizenship Act* 1948 created, for the first time, the status of 'Australian Citizen'; all Australian citizens under the provisions of this Act are declared to be British subjects. From the earlier table on birthplaces of the Tasmanian population, it is established that 95.89 per cent were born in Australia and its Territories, N.Z., the United Kingdom or Eire. While birthplace does not necessarily determine nationality in all cases, comparison of birthplace with nationality suggests that the percentage of naturalised British subjects was probably about three per cent of the Tasmanian population at 30 June 1971.

The following table shows the nationality of the Tasmanian population at 30 June 1971 and also at 30 June 1966:

Nationality (i.e. Allegiance) of the Population							
Nationality	Census, 30 June 1966		Census, 30 June 1971				
	Persons		Males	Females	Persons		
	Total	Proportion of Total			Total	Proportion of Total	
		per cent				per cent	
Australian Citizens and Other British Subjects (a)—							
Born in Australia	335,582	90.35	174,560	175,590	350,150	89.69	
Born Outside Australia	30,140	8.11	18,309	15,838	34,147	8.75	
Total	365,722	98.46	192,869	191,428	384,297	98.43	
Foreign—							
Dutch	1,265	0.34	432	397	829	0.21	
German	792	0.21	307	223	530	0.14	
Greek	556	0.15	279	259	538	0.14	
Italian	913	0.25	464	315	779	0.20	
Polish	417	0.11	125	93	218	0.06	
U.S. American	221	0.06	169	112	281	0.07	
Yugoslavian	378	0.10	265	98	363	0.09	
Other (incl. Stateless)	1,171	0.32	1,532	1,046	2,578	0.66	
Total Foreign	5,713	1.54	3,573	2,543	6,116	1.57	
Total	371,435	100.00	196,422	193,971	390,413	100.00	

(a) All persons of individual citizenship status who, by virtue of the *Federal Nationality and Citizenship Act* 1948-1966, are deemed to be British subjects. Includes naturalised British. For purposes of this table, Irish nationality is included with British.

Occupational Status

The table below shows the occupational status of persons in the labour force at the respective census dates (30 June 1966 and 1971):

Occupational Status: Analysis of those in Labour Force

Occupational Status	Census, 30 June 1966		Census, 30 June 1971				
	Persons		Males	Females	Persons		
	Total	Proportion of Labour Force			Total	Proportion of Labour Force	
		per cent				per cent	
In Labour Force—							
Employed—							
Employer	10,004	6.79	6,841	1,727	8,568	5.59	
Self-employed	10,806	7.33	8,442	1,892	10,334	6.74	
Employee (a)	123,023	83.51	90,627	39,649	130,276	85.00	
Unpaid Helper (b)	1,372	0.93	277	760	1,037	0.68	
Total	145,205	98.56	106,187	44,028	150,215	98.01	
Unemployed	2,117	1.44	1,786	1,261	3,047	1.99	
Total Labour Force	147,322	100.00	107,973	45,289	153,262	100.00	
Not in Labour Force	224,113	..	88,469	148,682	237,151	..	
Total	371,435	..	196,442	193,971	390,413	..	

(a) On wage or salary.

(b) Not on wage or salary.

The following table shows the status of persons not in the labour force in the 1966 and 1971 Censuses:

Occupational Status of Those Not in Labour Force

Occupational Status	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of those Not in Labour Force			Total	Proportion of Those Not in Labour Force
		per cent				per cent
Not in Labour Force—						
Home Duties	61,113	27.27		75,568	75,568	31.86
Child not at School ..	44,018	19.64	21,358	20,508	41,866	17.65
Child at School ..	86,428	38.56	45,665	43,121	88,786	37.44
Full-time Student ..			2,757	2,503	5,260	2.22
Other	32,554	14.53	18,689	6,982	25,671	10.82
Total Not in Labour Force	224,113	100.00	88,469	148,682	237,151	100.00
In Labour Force	147,322	..	107,973	45,289	153,262	..
Total	371,435	..	196,442	193,971	390,413	..

In the next table, the proportions of the population in the labour force in Tasmania and Australia at the respective Census dates are shown:

Tasmania and Australia: Proportion of Population in Labour Force (Per Cent)

Particulars	Census, 30 June 1966			Census, 30 June 1971		
	Males	Females	Persons	Males	Females	Persons
Tasmania	56.86	22.15	39.66	54.96	23.35	39.26
Australia	58.83	25.02	42.05	56.76	26.66	41.79

Industry

For the Census of 30 June 1971 a new industry classification was adopted; therefore the 1966 and 1971 classifications of the population by industry are not strictly comparable. The following principal comparisons should be regarded as approximate only: manufacturing—1971, 20.57 per cent of the labour force (1966, 23.05 per cent); wholesale and retail trade—1971, 17.69 (1966, 15.59); community services—1971, 11.59 (1966, 11.87); agriculture, forestry, fishing and hunting—1971, 8.99 (1966, 11.69); and construction—1971, 8.43 (1966, 9.70).

In the case of employees, the basis of classification is the industry of the employer; thus a carpenter employed by a mining company will appear under 'Mining', not under 'Construction'. Employees in the government sector (Commonwealth, State, Semi-Government, and Local Government) are not recorded separately but are allocated to appropriate industry groupings, e.g. State railway workers to 'Transport and Storage', postal workers to 'Communication', etc. Government employees not classified under any of the major industry groups in the following table appear under 'Public Administration and Defence'.

'Labour force' should not be confused with wage and salary earners since the term, by definition, includes employees, employers, self-employed, unpaid helpers and those classified as unemployed.

The next table shows the main groups of industry in which the labour force of Tasmania was employed at 30 June 1971:

Industry of Employed Population in Labour Force: Census, 30 June 1971

Particulars	Males	Females	Persons	
			Total	Proportion of Total in Labour Force
				per cent
Industry Group—				
Agriculture, Forestry, Fishing and Hunting—				
Agriculture and Services to Agriculture..	10,469	1,616	12,085	7.89
Forestry and Logging	1,095	41	1,136	0.74
Fishing and Hunting	530	21	551	0.36
Total	12,094	1,678	13,772	8.99
Mining	4,375	204	4,579	2.99
Manufacturing	25,313	6,219	31,532	20.57
Electricity, Gas and Water	3,389	293	3,682	2.40
Construction	12,502	415	12,917	8.43
Wholesale and Retail Trade.. .. .	16,522	10,594	27,116	17.69
Transport and Storage	6,919	676	7,595	4.96
Communication	2,443	794	3,237	2.11
Finance, Insurance, Real Estate and Business Services	4,537	3,285	7,822	5.10
Public Administration and Defence	4,987	2,223	7,210	4.70
Community Services	6,516	11,244	17,760	11.59
Entertainment, Recreation, Restaurants, Hotels and Personal Services	2,904	4,713	7,617	4.97
Other and Not Stated	3,686	1,690	5,376	3.51
Total Employed	106,187	44,028	150,215	98.01
Unemployed	1,786	1,261	3,047	1.99
Total in Labour Force	107,973	45,289	153,262	100.00
Not in Labour Force	88,469	148,682	237,151	..
Total	196,442	193,971	390,413	..

For Australia, the principal industry groups in which the labour force was employed were: manufacturing, 22.8 per cent of those in the labour force; wholesale and retail trade, 18.5 per cent; community services, 10.6 per cent; construction, 7.3 per cent; and agriculture, forestry, fishing and hunting, 7.2 per cent.

Religion

Commencing with the Census of 1933, and in subsequent censuses, the collection forms carried a note reminding the public that there was no legal obligation to answer the question on religion.

At the 1966 Census the householder was asked to state his religious denomination; however, for the 1971 Census an additional instruction was included in the religion question—'(If no religion write 'none')'. This led to a large increase in the number of persons answering 'none' to the religious question, whereas previously these householders had made no reply to the question. Therefore in the following table, the classifications 'no religion' and 'no reply' are not comparable between censuses, but the total of the two classifications is comparable.

The following table analyses the Tasmanian population according to religion reported at the Censuses of 1966 and 1971:

Religions of the Population

Religion	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of Total			Total	Proportion of Total
		per cent				per cent
Christian—						
Baptist	7,759	2.09	3,867	4,172	8,039	2.06
Brethren	3,062	0.82	1,906	2,023	3,929	1.01
Catholic	71,089	19.14	38,761	38,489	77,250	19.79
Churches of Christ ..	2,701	0.73	1,165	1,335	2,500	0.64
Church of England ..	166,023	44.70	83,776	85,313	169,089	43.31
Congregational ..	4,530	1.22	1,937	2,197	4,134	1.06
Greek Orthodox ..	1,514	0.41	1,096	822	1,918	0.49
Lutheran	1,742	0.47	966	871	1,837	0.47
Methodist	43,084	11.60	20,412	21,761	42,173	10.80
Presbyterian	17,498	4.71	8,459	8,822	17,281	4.43
Salvation Army ..	1,497	0.40	1,508	1,668	3,176	0.81
Seventh-day Adventist	1,924	0.52	665	895	1,560	0.40
Protestant Undefined ..	2,661	0.72	2,119	2,124	4,243	1.09
Other	5,243	1.41	3,582	3,684	7,266	1.86
Total Christian ..	330,327	88.93	170,219	174,176	344,395	88.21
Non-Christian—						
Hebrew	207	0.06	54	44	98	0.03
Other	278	0.07	321	142	463	0.12
Total Non-Christian	485	0.13	375	186	561	0.14
Indefinite	2,275	0.61	529	464	993	0.25
No Religion (a)	2,020	0.54	12,229	7,992	20,221	5.18
No Reply (a)	36,328	9.78	13,090	11,153	24,243	6.21
Total	371,435	100.00	196,442	193,971	390,413	100.00

(a) See section preceding the table for an explanation of the lack of comparability between the 1966 and 1971 figures.

VITAL STATISTICS

Historical

In 1839, John Montagu, Colonial Secretary of Van Diemen's Land, submitted to the Governor, Sir John Franklin, a series of statistical returns; below is shown part of Return No. 17 relating to births, deaths and marriages:

Vital Statistics of Van Diemen's Land

Year	Births	Deaths	Marriages
1824	177	132	75
1828	309	250	120
1829	301	260	166
1830	460	270	163
1831	422	282	114
1833	455	379	257
1834	714	557	370
1835	730	525	356
1836	684	443	496
1837	754	597	381
1838	717	403	331

The complete table covers the period 1824-1838 but entries for 1825, 1826, 1827 and 1832 read 'No Returns'. In a commentary for the Governor's guidance, Montagu wrote: 'I would also observe that the number of births and deaths are those only returned by ministers of the Church of England, and the former column refers to those only who have been christened, and although the number of deaths must be near the truth, yet the actual number of births has been very much under-stated'. Thus even though the Tasmanian record of births, deaths and marriages covers a period of 140 years, these early figures cannot be accepted as complete.

Registration Provisions

Franklin's Legislative Council had passed in 1838 *An Act for Registering Births, Deaths and Marriages in the Island of Van Diemen's Land and its Dependencies*. This provided for a Registrar in Hobart with subordinate Deputy Registrars in registration districts throughout the colony; they were to record births and deaths and report them to the Registrar. Ministers celebrating marriage were required to report direct to the Registrar; Deputy Registrars could also officiate and had certain licensing functions. As late as 1867, the Government Statistician complained that accurate death rates could not be compiled because Section 22 of the 1838 Act excluded the registration of the death of any prisoner of the Crown serving an unexpired sentence of transportation. In 1868, he reported that the death rate could be accepted as correct since 'only one transported offender died during the year'. This would certainly suggest that *total* deaths for the island were not recorded for the years 1839 to 1866.

From 1857 to 1882, the Registrar of the Supreme Court was also Registrar of Births, Deaths and Marriages; from 1882 to 1919, the Government Statistician was the Registrar; from 1919, the Registrar-General's Department operated as a separate entity.

The Registrar-General

The principal Act under which the Registrar-General operates is the *Registration of Births and Deaths Act* 1895, as amended, which provides for District Registrars and the appointment of a Registrar-General to be responsible for the maintenance of central registers; in essence, the regional approach of the 1838 Act is retained. The functions of the Registrar-General in relation to the registration of marriages were last defined in the *Marriage Act* 1942. However, in 1961, the Commonwealth Parliament passed the *Marriage Act* 1961. A few minor provisions (relating mainly to certain extensions of the application of the prohibited degrees) came into operation on the date the Act received the Royal Assent (6 May 1961) and the remainder of the Act came into operation on 1 September 1963. On this date, the Act superseded the marriage laws of all the States but did not affect the essential function of the Registrar-General in the central registration of marriages.

Summary of Principal Statistics

The principal numbers and rates relating to vital statistics in Tasmania for recent years are given in the following table (rates have been revised for the intercensal years 1966-1971):

Summary of Vital Statistics

Year	Number of—				Rate per 1,000 of Mean Population			Infant Mortality (Deaths Under One Year per 1,000 Live Births)
	Marriages	Live Births	Deaths	Infant Deaths (a)	Marriages	Live Births	Deaths	
1967	3,213	7,547	3,228	130	8.56	20.10	8.60	17.2
1968	3,426	8,317	3,284	143	9.02	21.89	8.64	17.2
1969	3,532	8,445	3,309	139	9.17	21.93	8.59	16.5
1970	3,535	8,185	3,174	116	9.11	21.09	8.18	14.2
1971	3,578	8,321	3,295	114	9.15	21.27	8.42	13.7
1972	3,426	7,824	3,227	127	8.71	19.90	8.21	16.2

(a) Deaths under one year; included also in total deaths.

Crude Rate Comparisons

The rates per 1,000 of mean population for births, deaths and marriages are referred to as *crude rates*. It will be seen, in regard to marriages, that not *all* the population is 'at risk', children and those already married being obvious excluded examples. Similarly, births are clearly events related to certain fertile age groups of women and not to the total population; births also are directly related to the number of married persons and to the age structure of the married proportion of the community. Finally, deaths have a definite relationship with the numbers of each sex and the age structure of the community. Crude rates are valid measures of comparison in the short term only.

Subject to this limitation, the following Tasmanian historical comparisons exist as from 1880:

1. Crude Marriage Rate: highest 10.51 (1946); lowest 5.50 (1895 and 1896).
2. Crude Birth Rate: highest 36.63 (1884); lowest 19.39 (1935).
3. Crude Death Rate: highest 17.41 (1883); lowest 7.70 (1960).

It is probably significant that 1946 was the year of rapid demobilisation after World War II and that a similar marriage trend was recorded for 1919 and 1920 after World War I. As to the minima for marriage and birth rates, the 1890s and 1930s were decades characterised by severe economic depression. The crude birth rate for 1972 (19.90 per 1,000 of mean population) is not far above the State's lowest figure recorded in the 20th century (i.e. 19.39 in 1935). There is, of course, no suggestion that 1972 was a year of economic depression and the popularly accepted theory attributes the low figure to deliberate family planning. This is supported by the fact that, although girls born in the immediate post-war period have now entered the ranks of those likely to marry and have therefore increased the number of potentially fertile women, the fertility rate is declining (as described in a later section under 'Births').

The effect of the post-war increase in births on the number of potentially fertile women may be inferred from the following table:

Pre-War, War-Time and Post-War Female Births

Year	Number	Year	Number	Year	Number
Pre-War—		War-Time—		Post-War—	
1934	2,127	1940	2,425	1946	3,287
1935	2,211	1941	2,574	1947	3,517
1936	2,226	1942	2,612	1948	3,452
1937	2,359	1943	2,677	1949	3,532
1938	2,366	1944	2,503	1950	3,490
1939	2,409	1945	2,882	1951	3,553
				1952	3,790
				1953	3,843

Review of Infant Mortality

Infant mortality relates to the number of deaths *under one year* and the rate is expressed as the number of such deaths per 1,000 live births. It follows that comparisons over long periods of time are valid and not affected by the limitations attached to crude rates. In the following record of infant mortality, the drop in rates has been dramatic with 1971 showing the lowest rate yet experienced.

Infant Mortality Rate (Deaths under One Year Per 1,000 Live Births) Selected Years from 1880

Year	Rate	Year	Rate	Year	Rate
1880	112.3	1920	65.5	1960	19.1
1890	105.6	1930	50.6	1970	14.2
1900	80.0	1940	35.2	1971	13.7
1910	101.7	1950	23.8	1972	16.2

The peak year since 1880 was 1883 with a rate of 124.0. In the period 1880-1910, the annual infant mortality rate exceeded 100 on 14 occasions. There has been a steady improvement in infant mortality rates over the past 50 years. The rate for the period 1916-1920 was 64, for the year 1961, 16.8, and in 1971 a record minimum of 13.7 was achieved.

At the turn of the century, 20 to 25 per cent of all deaths were those of infants under one year. The rapid fall in infant mortality rates had a marked effect on the crude death rates as infant deaths are a component of total deaths. Infant mortality has fallen largely due to advances in medical science enabling the control of disease and the development of techniques to reduce perinatal deaths; improvements in child care and nutrition also have made a significant contribution.

Marriages

The following table summarises the number of marriages and the crude marriage rate since 1880:

Marriages and Crude Marriage Rates, Selected Years from 1880

Year	Marriages		Year	Marriages	
	Number	Crude Rates (a)		Number	Crude Rates (a)
1880	840	7.39	1940	2,476	10.27
1890	954	6.66	1950	2,560	9.18
1900	1,332	7.72	1960	2,713	7.82
1910	1,493	7.82	1970	3,535	r 9.11
1920	1,999	9.50	1971	3,578	r 9.15
1930	1,450	6.56	1972	3,426	8.71

(a) Number of marriages per 1,000 of mean population.

The number of persons under 21 years of age married in recent years is shown in the next table:

Marriages: Persons Under 21 Years of Age

Year	Age in Years						Persons Under 21 Years	
	15	16	17	18	19	20	Number	Percentage of all Marriages
BRIDEGROOMS								
1968	8	120	215	317	660	19.26
1969	5	130	214	309	658	18.63
1970	6	160	235	348	749	21.19
1971	1	8	111	244	362	726	20.29
1972	1	8	127	235	336	707	20.64

Marriages: Persons Under 21 Years of Age—continued

Year	Age in Years						Persons Under 21 Years	
	15	16	17	18	19	20	Number	Percentage of all Marriages
BRIDES								
1968	3	119	234	384	482	559	1,781	51.98
1969	2	96	236	396	521	517	1,768	50.06
1970	2	111	269	425	541	505	1,853	52.42
1971	2	120	247	437	557	534	1,897	53.02
1972	8	131	247	432	490	503	1,811	52.86

The following table gives the average age of brides and bridegrooms in recent years:

Average Age of Bridegrooms and Brides
(Years)

Particulars	1967	1968	1969	1970	1971	1972
Average Age of Bridegrooms—						
Bachelors	24.33	24.06	24.10	23.85	24.01	23.98
Widowers	56.29	58.07	54.85	56.87	55.46	56.15
Divorcees	41.70	40.73	40.47	39.75	38.73	39.53
All Bridegrooms	26.13	25.97	25.79	25.81	26.02	26.08
Average Age of Brides—						
Spinsters	21.39	21.36	21.36	21.38	21.24	21.16
Widows	48.57	50.47	48.23	49.03	48.59	50.18
Divorcees	36.42	37.35	37.27	35.47	35.66	35.95
All Brides	23.14	23.12	23.03	22.96	23.14	23.23

The next table analyses the ages of all bridegrooms and brides contracting marriages:

Age of Bridegrooms and Brides, 1972

Age (Years)	Bridegrooms		Brides	
	Number	Per Cent of Total	Number	Per Cent of Total
Under 20	371	10.83	1,308	38.18
20-24	1,889	55.14	1,490	43.49
25-29	654	19.08	289	8.44
30-34	169	4.93	85	2.48
35-39	78	2.28	62	1.81
40-44	64	1.87	45	1.31
45-49	54	1.58	43	1.26
50-54	57	1.66	36	1.05
55-59	26	0.76	27	0.79
60-64	25	0.73	19	0.55
65 and Over	39	1.14	22	0.64
Total	3,426	100.00	3,426	100.00

In the next table, the conjugal condition of persons marrying is shown for a six-year period:

Conjugal Condition of Persons Marrying

Year	Bridegrooms			Brides			Total Marriages
	Bachelors	Widowers	Divorcees	Spinsters	Widows	Divorcees	
1967 ..	2,952	85	176	2,930	114	169	3,213
1968 ..	3,138	99	189	3,126	118	182	3,426
1969 ..	3,252	96	184	3,234	103	195	3,532
1970 ..	3,202	95	238	3,236	101	198	3,535
1971 ..	3,214	109	255	3,224	129	225	3,578
1972 ..	3,072	102	252	3,063	120	243	3,426

The numbers of marriages performed according to the rites of the principal religious denominations and of civil marriages contracted before registrars are shown for recent years in the next table. Almost 12 per cent of all marriages in 1967 were civil marriages contracted before registrars. In 1972 the figure reached 14.6 per cent of all marriages.

Marriages, Religious and Civil

Particulars of Celebration	1967	1968	1969	1970	1971	1972
Religious Rites—						
Church of England ..	1,299	1,433	1,483	1,431	1,359	1,332
Catholic	690	732	759	738	757	721
Presbyterian	147	144	148	160	150	161
Methodist	434	417	444	477	498	412
Congregational	44	39	52	45	43	47
Baptist	83	91	90	97	86	101
Churches of Christ	20	16	25	23	19	21
Salvation Army	19	32	25	23	17	26
Seventh-day Adventist	9	14	12	7	12	12
Other	83	83	80	90	112	92
Civil Ceremonies (a)	385	425	414	444	525	501
Total	3,213	3,426	3,532	3,535	3,578	3,426

(a) Marriages contracted before registrars.

Divorce

Divorce in Tasmania was provided for under the *Matrimonial Causes Act* 1860, as amended. However, as from 1 February 1961, Australia came under a uniform divorce law, the *Matrimonial Causes Act* 1959 of the Commonwealth Parliament having come into effect on that date.

In 1972 dissolutions of marriage represented 13.02 per cent of the number of marriages contracted for that year (446 dissolutions compared with 3,426 marriages). The increase in the number of dissolutions is illustrated in the historical table which follows:

Dissolutions of Marriage Granted (a): Summary from 1881

Decade Ending—	Maximum in Decade		Minimum in Decade	
	Year	Number	Year	Number
1890	1886	6	1884	..
1900	1894	6	1896	3
1910	1909	13	1904	2
1920	1920	18	1916	2
1930	1928	55	1924	20
1940	1938	109	1937	30
1950	1949	266	1942	83
1960	1954	233	1958	176
1970	1970	426	1964	230

(a) Includes nullities of marriage and judicial separations.

The following table gives the number of petitions filed by husbands and wives respectively, and the number of dissolutions of marriage during the last six years. Every decree of dissolution of marriage is, in the first instance, a decree *nisi* and is normally made absolute after a period of three months.

Petitions Filed and Dissolutions Granted

Particulars	1967	1968	1969	1970	1971	1972
Petitions for Dissolution (a) Filed By—						
Husband	151	198	202	224	221	237
Wife	169	210	227	279	267	288
Total Petitions	320	408	429	503	488	525
Dissolutions (a) Granted on Petition of—						
Husband	96	154	159	187	198	200
Wife	152	149	172	239	234	246
Total Dissolutions	248	303	331	426	432	446

(a) Includes nullities of marriage and judicial separations.

The next table contains separate details of petitions filed for dissolutions and nullities:

Petitions Filed, 1972

Petition For	Petitioner		Total
	Husband	Wife	
Dissolution	237	287	524
Nullity .. .. .	..	1	1
Total	237	288	525

The table that follows analyses the grounds on which dissolutions were granted:

Dissolutions (a) Granted According to Grounds, 1972

Grounds	Petitioner		Total
	Husband	Wife	
Single Ground—			
Desertion	76	88	164
Adultery	84	80	164
Separation	30	45	75
Cruelty	1	6	7
Drunkenness	1	8	9
Other	3	6	9
Dual Grounds—			
Desertion and Adultery	2	..	2
Desertion and Separation	2	6	8
Cruelty and Drunkenness .. ..	..	1	1
Other	1	6	7
Total	200	246	446

(a) Includes nullities of marriage and judicial separations.

The more frequent grounds for the granting of dissolutions in recent years are shown in the next table:

Dissolutions (a) Granted According to Principal Grounds: Summary

Grounds	1967	1968	1969	1970	1971	1972
On Petition of Husband—						
Adultery	18	49	61	74	80	84
Desertion	44	59	74	72	76	76
Separation	24	32	17	34	39	30
Other	10	14	7	7	3	10
On Petition of Wife—						
Adultery	23	36	43	73	71	80
Desertion	65	54	70	74	74	88
Separation	38	37	38	59	59	45
Other	26	22	21	33	30	33
Total	248	303	331	426	432	446

(a) Includes nullities of marriage and judicial separations.

An analysis of the ages of the parties is made in the table below:

Dissolutions of Marriage 1972 (a): Ages of Parties at Time of Dissolution

Age of Husband (Years)	Age of Wife (Years)							Total Husbands
	Under 20	20-29	30-39	40-49	50-59	60 and Over	Not Stated	
Under 20
20-29	120	5	..	..	..	..	125
30-39	72	79	4	1	..	..	156
40-49	1	37	54	8	..	1	101
50-59	2	23	20	1	..	46
60 and Over	1	..	9	8	..	18
Not Stated
Total Wives	..	193	124	81	38	9	1	446

(a) Includes nullities of marriage and judicial separations.

The duration of marriage and issue are analysed below:

Dissolutions of Marriage, 1972 (a): Duration of Marriage and Issue

Duration of Marriage (Years)	Dissolutions of Marriages with—						Total Marriages Dissolved	Total Number of Children (b)
	No Children	1 Child	2 Children	3 Children	4 Children	5 or More Children		
0-4	43	11	4	..	..	..	58	19
5-9	36	44	52	12	1	..	145	188
10-14	11	12	23	12	9	2	69	141
15-19	5	7	14	15	11	9	61	172
20-24	6	7	16	12	7	7	55	147
25-29	9	10	5	2	2	1	29	40
30-34	10	5	3	2	..	1	21	22
35-39	5	..	..	..	..	..	5	..
40-44	3	..	..	..	..	..	3	..
45 and Over ..	..	..	..	..	..	..	..	..
Total	128	96	117	55	30	20	446	729

(a) Includes nullities of marriage and judicial separations.

(b) Under 21 years of age.

Births

The following table summarises births and crude birth rates from 1880:

Number of Births and Crude Birth Rates, Selected Years from 1880

Year	Births		Year	Births	
	Number	Per 1,000 of Mean Population		Number	Per 1,000 of Mean Population
1880	3,739	32.90	1930	4,785	21.66
1885	4,637	36.29	1935	4,456	19.39
1890	4,813	33.60	1940	4,994	20.71
1895	4,790	31.16	1945	5,785	23.27
1900	4,864	28.18	1950	7,242	25.96
1905	5,257	28.50	1955	8,089	25.63
1910	5,586	29.25	1960	8,853	25.52
1915	5,845	29.78	1965	7,535	20.48
1920	5,740	27.29	1970	8,185	21.09
1925	5,218	24.21	1972	7,824	19.90

The next table shows the number of births classified according to the age of mother and also crude birth rates for recent years:

Number of Births Classified According to Age of Mother, and Crude Birth Rates

Age Group (Years)	1967	1968	1969	1970	1971	1972
10-14	6	7	1	6	9	4
15-19	1,091	1,163	1,201	1,175	1,153	1,176
20-24	2,749	3,206	3,259	3,127	3,277	2,871
25-29	2,064	2,272	2,346	2,328	2,364	2,382
30-34	997	1,033	1,037	999	1,013	939
35-39	471	468	464	420	374	359
40-44	159	160	125	120	120	86
45 and Over	10	8	12	10	11	7
Total Births	7,547	8,317	8,445	8,185	8,321	7,824
Crude Birth Rate (a) ..	r 20.10	r 21.89	r 21.93	r 21.09	r 21.27	19.90

(a) Births per 1,000 of mean population.

One observation of interest is that births of males, in total, usually exceed those of females. The next table shows births by sex and indicates masculinity:

Births by Sex and Masculinity

Particulars	1967	1968	1969	1970	1971	1972
Births of—						
Males	3,870	4,288	4,337	4,232	4,205	3,935
Females	3,677	4,029	4,108	3,953	4,116	3,889
Total	7,547	8,317	8,445	8,185	8,321	7,824
Masculinity (a)	105.25	106.43	105.57	107.06	102.16	101.18

(a) Number of male births per 100 female births.

In the following table, births are analysed by sex and by the age of the mother and classified as nuptial or ex-nuptial:

Births by Sex, Age of Mother and Nuptial State, 1972

Age Group (Years)	Nuptial Births		Ex-nuptial Births		All Births		
	Male	Female	Male	Female	Male	Female	Total
10-14 ..	..	..	2	2	2	2	4
15-19 ..	407	412	185	172	592	584	1,176
20-24 ..	1,383	1,313	88	87	1,471	1,400	2,871
25-29 ..	1,132	1,154	47	49	1,179	1,203	2,382
30-34 ..	439	460	17	23	456	483	939
35-39 ..	175	165	13	6	188	171	359
40-44 ..	41	41	2	2	43	43	86
45 and Over	4	3	..	..	4	3	7
Total ..	3,581	3,548	354	341	3,935	3,889	7,824

The table that follows summarises, for a six-year period, births according to whether the child was first-born or the issue of a subsequent birth:

Births of First Born and Subsequent Births; Nuptial State of Mothers

Classification of Births	1967	1968	1969	1970	1971	1972
Nuptial—						
First Born (a)	2,337	2,721	2,731	2,641	2,691	2,544
Subsequent Birth	4,648	4,939	5,067	4,894	4,908	4,585
Ex-Nuptial	562	657	647	650	722	695
Total Births ..	7,547	8,317	8,445	8,185	8,321	7,824
Ex-nuptial Births as Percentage of Total Births ..	7.4	7.9	7.7	7.9	8.7	8.9

(a) In case of multiple births with no previous issue, first child born alive is recorded as 'First Born' and subsequent child or children as 'Subsequent Birth'.

It should be noted that 'First Born' in the previous tables refers specifically to the union from which the child originates; thus a mother married for the second time could be credited with a 'First Born' child despite having issue from the previous union.

Birth Rates

The *crude birth rate* is expressed as the number of births per 1,000 of mean population; this is obviously an unsatisfactory measure since births are events strictly related to the number of women in the fertile age groups. A more satisfactory index is the *fertility rate*, expressed as the number of births per 1,000 women aged 15-44 years. However, there are profound differences between the relative fertility of various age groups and a further refinement is the calculation of *age-specific birth rates*. The following table shows age-specific birth rates for each five-year age group of females from 10-49 years, the fertility rate applicable to all women in the age group 15-44 years and the crude birth rate. The table also illustrates two principal factors affecting the number of births in any one year: (i) the relative numbers of women within each fertile age group; and (ii) the relative fertility of the women in each age group.

Birth and Fertility Rates

Particulars	1967	1968	1969	1970	1971	1972
AGE SPECIFIC BIRTH RATES (a)						
Age Group (Years)—						
10-14	0.3	0.4	0.1	0.3	0.4	0.2
15-19	62.9	65.8	66.7	64.3	65.2	64.0
20-24	199.9	217.7	210.1	190.7	208.6	186.2
25-29	180.1	196.4	196.3	189.2	181.0	176.3
30-34	95.5	96.8	95.1	89.8	89.1	81.3
35-39	43.6	44.0	43.9	40.8	35.7	34.4
40-44	14.0	14.2	11.2	10.9	11.0	8.0
45-49	0.9	0.7	1.1	0.9	1.0	0.6
FERTILITY RATE (b)						
Fertility Rate	100	109	108	103	105	98
CRUDE BIRTH RATE (c)						
Crude Birth Rate ..	20.1	21.9	21.9	21.1	21.3	19.9

(a) Number of births per 1,000 women in age groups shown.

(b) Number of births per 1,000 women aged 15-44 years.

(c) Number of births per 1,000 of mean population.

Infant Mortality

Infant mortality relates to children dying within one year of birth. The table that follows analyses such deaths in further detail and shows that the greatest mortality rate is associated with infants in their first day of life. To obtain a correct picture of relative risk, it should be noted that deaths in the 'one day and under one week' class are spread over six days; in the 'one week and under four weeks' class spread over 21 days; and in the final class, spread over 338 days.

Infant Mortality: Number of Deaths and Mortality Rates at Specific Ages

Year				Infant Deaths		Mortality Rate (a) at Age Specified			
				Number	Per 1,000 Live Births	Under 1 Day	1 Day and under 1 Week	1 Week and under 4 Wks	4 Weeks and under 12 Months
1967	..	..	..	130	17.2	5	5	1	6
1968	..	..	..	143	17.2	6	4	1	6
1969	..	..	..	139	16.5	5	4	2	6
1970	..	..	..	116	14.2	4	4	1	5
1971	..	..	..	114	13.7	3	4	1	6
1972	..	..	..	127	16.2	5	2	2	7

(a) Infant deaths per 1,000 live births; rates have been rounded to whole numbers.

Infant Mortality (a): Tasmania-Australia Comparison

State/Country	1967	1968	1969	1970	1971	1972
Tasmania	17.2	17.2	16.5	14.2	13.7	16.2
Australia	18.3	17.8	17.9	17.9	17.3	16.7

(a) Infant deaths per 1,000 live births.

Causes of Infant Deaths

The following table has been compiled on the basis of the Eighth Revision (1965) of the International Classification of Diseases (World Health Organisation).

Infant Mortality: Causes of Death Under One Year

Cause		1969	1970	1971	1972
009	Diarrhoeal diseases	3	1	3	2
036	Meningococcal infection .. .. .	..	..	2	1
000-008	Other general diseases (a) .. .. .	..	2	3	..
010-035					
037-315					
320	Meningitis .. .. .	..	1	..	1
321-389	Other diseases of the nervous system and sense organs .. .. .	..	1	1	1
390-458	Diseases of the circulatory system	1	..	..	1
460-466	Acute respiratory infection (except influenza)	5	3	5	13
470-474	Influenza .. .. .	..	..	..	..
480-486	Pneumonia	39	27	37	36
490-493	Bronchitis emphysema and asthma .. .. .	..	..	1	..
500-519	Other diseases of respiratory system .. .. .	..	1	1	..
520-577	Diseases of the digestive system	2	3	..	3
580-629	Diseases of genito-urinary system .. .. .	..	..	..	..
680-709	Diseases of skin and subcutaneous tissue .. .. .	..	..	..	..
710-738	Diseases of musculoskeletal system and connective tissue .. .. .	..	..	..	..
740-759	Congenital anomalies	20	18	14	24
760-763	Certain maternal conditions	3	7	2	2
764-768	Birth injury, difficult labour and other anoxic and hypoxic conditions	22	22	18	18
772-776					
769-771	Other causes of perinatal mortality	37	28	20	22
773-775					
777-779	Symptoms and ill-defined conditions .. .. .	..	..	1	..
780-796	Accidents, poisonings and violence	7	2	6	3
800-999					
Total		139	116	114	127

(a) Principally infective and parasitic diseases.

Deaths

The following table summarises the number of deaths and crude death rates from 1880 to 1972:

Number of Deaths and Crude Death Rates, Selected Years from 1880

Year	Deaths		Year	Deaths	
	Number	Rate (a)		Number	Rate (a)
1880	1,832	16.12	1930.. .. .	1,948	8.82
1885	2,036	15.94	1935.. .. .	2,353	10.24
1890	2,118	14.79	1940.. .. .	2,387	9.90
1895	1,811	11.78	1945.. .. .	2,413	9.71
1900	1,903	11.02	1950.. .. .	2,466	8.85
1905	1,844	10.00	1955.. .. .	2,489	7.89
1910	2,120	11.10	1960.. .. .	2,670	(b) 7.70
1915	2,015	10.27	1965.. .. .	3,043	8.27
1920	2,036	9.68	1970.. .. .	3,174	8.18
1925	1,996	9.26	1972.. .. .	3,227	8.21

(a) Per 1,000 of mean population.

(b) Lowest on record.

A marked difference exists between male and female crude death rates:

Male and Female Deaths and Crude Rates

Year	Number of Deaths			Deaths Per 1,000 of Mean Population			Ratio of Male to Female Crude Death Rates
	Males	Females	Persons	Males	Females	Persons	
1962 ..	1,622	1,248	2,870	9.01	7.10	8.07	1.269
1963 ..	1,601	1,217	2,818	8.75	6.83	7.82	1.281
1964 ..	1,797	1,377	3,174	9.76	7.64	8.71	1.277
1965 ..	1,716	1,327	3,043	9.24	7.29	8.27	1.267
1966 ..	1,726	1,433	3,159	9.21	7.78	8.50	1.184
1967 ..	1,790	1,438	3,228	9.45	7.73	8.60	1.223
1968 ..	1,906	1,378	3,284	9.96	7.31	8.64	1.363
1969 ..	1,876	1,433	3,309	9.67	7.50	8.59	1.289
1970 ..	1,785	1,389	3,174	9.13	7.21	8.18	1.266
1971 ..	1,805	1,490	3,295	9.17	7.66	8.42	1.197
1972 ..	1,793	1,434	3,227	9.08	7.33	8.21	1.239

Australian States: Number of Deaths (a)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia (b)
1968 ..	41,803	29,967	16,078	9,916	7,468	3,284	109,547
1969 ..	40,665	28,976	15,786	9,337	7,350	3,309	106,496
1970 ..	43,601	30,335	17,055	10,138	7,543	3,174	113,048
1971 ..	41,691	30,598	16,339	9,686	7,806	3,295	110,650
1972 ..	41,652	29,856	16,598	9,764	7,441	3,227	109,760

(a) Includes deaths of Aborigines.

(b) Includes A.C.T. and N.T.

Australian States: Crude Death Rates, (a) Census Years

State	1921	1933	1947	1954	1961	1966	1971r
New South Wales	9.50	8.58	9.53	9.46	8.95	9.57	9.04
Victoria	10.52	9.59	10.44	9.20	8.37	8.90	8.72
Queensland	9.37	8.83	9.15	8.64	8.42	8.90	8.93
South Australia	10.02	8.44	9.62	9.02	8.06	8.54	8.23
Western Australia	10.42	8.64	9.39	8.38	7.77	8.13	7.57
Tasmania	10.30	9.60	9.17	8.67	7.89	8.50	8.42
Australia (b)	9.91	8.92	9.69	9.10	8.47	9.01	8.66

(a) Deaths per 1,000 of mean population.

(b) Includes A.C.T. and N.T.

Death Rates for Specific Age Groups

Previously in this Chapter, crude death rates were described as unsuitable for comparisons over long periods of time due to changes in the age structure of the community. In the following table, this difficulty is overcome by calculating death rates for specific age groups. The method employed is to obtain the average annual deaths for specific age groups over those three-year periods which are broken into equal parts by a census of population (e.g. 30 June 1947 is the census date for a calculation of rates in the three years, 1946-1948 inclusive). Rates can then be calculated by comparing the average number of deaths for each group with the number of persons in each group as revealed by the census. In theory, the calculation of such rates need not be restricted to periods for which a census date forms the midpoint but the advantage of accepting such restriction lies in the accuracy of the age distribution obtained from the census. In the table, three-year periods have been selected appropriate to the Censuses of 1947 and 1971 (the data relate to the Tasmanian population):

Death Rates for Specific Age Groups (a)

Age Group (Years)	Males		Females		Persons	
	1946-48	1970-72	1946-48	1970-72	1946-48	1970-72
0-4	9.13	4.46	7.24	2.93	8.21	3.71
5-9	1.15	0.47	0.69	0.36	0.92	0.42
10-14	0.67	0.56	0.39	0.30	0.53	0.43
15-19	1.62	2.42	1.46	0.60	1.54	1.53
20-24	2.10	2.10	1.79	0.53	1.94	1.96
25-29	2.12	1.87	1.74	0.83	1.93	1.37
30-34	2.27	1.84	1.90	0.79	2.09	1.33
35-39	3.10	2.10	2.59	1.34	2.85	1.73
40-44	3.93	3.43	3.51	1.89	3.73	2.69
45-49	5.88	5.36	4.66	3.10	5.28	4.25
50-54	9.52	9.65	7.84	5.79	8.65	7.74
55-59	16.98	15.77	10.03	8.26	13.44	12.06
60-64	23.87	25.71	17.30	12.82	20.53	19.19
65-69	41.82	41.10	27.35	22.40	34.56	31.51
70-74	58.43	64.05	49.47	37.51	53.80	48.92
75-79	103.22	94.96	77.00	62.46	89.78	74.91
80-84	156.64	140.11	123.49	99.45	138.41	114.30
85 and Over	292.36	220.56	220.32	204.67	250.16	210.54

(a) Rate per 1,000 of the population in the specified age group at census date.

Causes of Death

The Eighth (1965) Revision of the International Classification of Diseases was adopted for use in 1968 but has not materially affected comparability with details based on the Seventh Revision (1955). The following table shows causes of deaths, the rates per 100,000 of mean population and the proportion of deaths from each cause.

Causes of Death: Numbers and Rates, 1972

Cause of Death	Inter- national Classifi- cation	Number of Deaths	Rate Per 100,000 of Mean Popula- tion	Percentage of Total Deaths
0-4. (a)	(a)	7	2	0.2
5. Tuberculosis of respiratory system	010-012	2	1	0.1
6. Other tuberculosis including late effects	013-019	7	2	0.2
7-16. (b)	(b)	1	..	..
17. Syphilis and its sequelae	090-097	2	1	0.1
18. All other infective and parasitic diseases	(c)	9	2	0.3
19. Malignant neoplasms—				
Digestive organs and peritoneum	150-159	191	49	5.9
Trachea, bronchus and lung	162	84	21	2.6
Breast	174	41	10	1.3
Genito-urinary organs	180-189	114	29	3.5
Leukaemia	204-207	29	7	0.9
Other malignant and lymphatic neoplasms	(d)	89	23	2.8
20. Benign and unspecified neoplasms	210-239	10	2	0.3
21. Diabetes mellitus	250	48	12	1.5
22. Nutritional deficiencies	260-269	2	1	0.1
23. Anaemias	280-285	12	3	0.4
24. Meningitis	320	3	1	0.1
25. Active rheumatic fever	390-392	1	..	..
26. Chronic rheumatic heart disease	393-398	30	8	0.9
27. Hypertensive disease	400-404	52	13	1.6
28. Ischaemic heart disease	410-414	885	225	27.4
29. Other forms of heart disease	420-429	125	32	3.9

Causes of Death: Numbers and Rates, 1972—continued

Cause of Death	Inter- national Classifi- cation	Number of Deaths	Rate Per 100,000 of Mean Popula- tion	Percentage of Total Deaths
30. Cerebrovascular disease	430-438	426	108	13.2
31. Influenza	470-474	4	1	0.1
32. Pneumonia	480-486	139	35	4.3
33. Bronchitis, emphysema and asthma	490-493	151	38	4.7
34. Peptic ulcer	531-533	28	7	0.9
35. Appendicitis	540-543	..	..	..
36. Intestinal obstruction and hernia	{ 550-553	2	1	0.1
	560	6	1	0.2
37. Cirrhosis of liver	571	15	4	0.5
38. Nephritis and nephrosis	580-584	24	6	0.7
39. Hyperplasia of prostate	600	5	1	0.2
40. Abortion	640-645	1	..	..
41. { Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of compli- cation	630-639	..	..	..
	650-678	..	..	..
42. Congenital anomalies	740-759	40	10	1.2
43. { Birth injury, difficult labour and other anoxic and hypoxic conditions	{ 764-768	2	1	0.1
	772, 776	17	4	0.5
	760-763	2	1	0.1
	769-771	8	2	0.2
44. Other causes of perinatal mortality	{ 773-775	2	1	0.1
	777-779	12	3	0.4
45. Symptoms and other ill-defined conditions	780-796	15	4	0.5
	Remainder of			
46. All other diseases	240-738	304	77	9.6
47. Motor vehicle accidents	810-823	120	31	3.7
48. All other accidents	{ 800-807	5	1	0.2
	825-949	106	27	3.3
49. Suicide and self-inflicted injuries	950-959	43	11	1.3
50. All other external causes	960-999	6	1	0.2
All Causes .. .. .	..	3,227	821	100.00

(a) 000-009. (See following text for specification of diseases.)

(b) 020, 032, 033, 034, 036, 040-043, 050, 055, 080-084. (See following text for specification of diseases.)

(c) 021-027, 030, 031, 035, 037, 038, 039, 044-046, 051-054, 056, 057, 060-068, 070-079, 085-089, 098-117, 120-136.

(d) 140-149, 160, 161, 163, 170-173, 190-203, 208, 209.

It will be noted that items 0-4 and 7-16 in the table were not listed individually, few associated deaths having been recorded. The specification of causes reads: (1) cholera; (2) typhoid fever; (3) dysentery, all forms; (4) enteritis and other diarrhoeal diseases; (7) plague; (8) diphtheria; (9) whooping cough; (10) streptococcal sore throat and scarlet fever; (11) meningococcal infection; (12) acute poliomyelitis; (13) smallpox; (14) measles; (15) typhus and other rickettsial diseases; (16) malaria. Uncertainty as to diagnosis in earlier periods makes comparison difficult but, at the turn of the century, whooping cough, diphtheria, typhoid fever and scarlet fever were diseases associated with numerous deaths.

Causes of Death in Age Groups

The previous tables showing causes of death make no reference to age, a complete dissection by age and cause being beyond the scope of a year book. Nevertheless, there is an extremely significant relationship between age and cause of death and the next table indicates, in summary form, their close inter-connection. For each of the specified causes in the next table, two percentages are shown: (i) deaths in a particular age group as a proportion of total deaths from all causes in that age group; (ii) deaths in a particular age group as a proportion of total deaths from the same cause at all ages. The causes chosen and specified are such that they account, in total, for approximately 75 per cent or more of deaths in most of the given age groups.

Attention is called to 'Accidental and violent deaths' (800-999) which account for over 60 per cent of deaths in the ages from 1 to 34 years inclusive. Also noteworthy is the present relative unimportance of 'Infective and parasitic diseases' (001-136). The most important group, in a total sense, is 'Diseases of the heart' (390-398, 400-404, 410-429) followed by 'Cancer (all forms)' (140-209); then 'Cerebrovascular diseases' (430-438); 'Pneumonia, bronchitis and influenza' (470-474, 480-486, 490-493); nevertheless, the inter-connection between age and cause of death is so close that none of these causes needs to be specified for some age groups in the table.

Principal Causes of Death in Age Groups, 1972

Age Group in Years	Inter- national Classifi- cation	Cause of Death	Death from Specified Causes in Age Groups		
			Number	Proportion of Deaths	
				In Age Group (Per Cent)	At All Ages (Per Cent)
Under 1 ..	480-486	Pneumonia	36	28.3	25.9
	740-759	Congenital anomalies	24	18.9	60.0
	776	Anoxic and hypoxic conditions	15	11.8	94.0
	460-466	Acute respiratory infections	13	10.2	72.2
	777	Immaturity, unqualified	12	9.5	100.0
	..	Other causes	27	21.3	..
		All Causes	127	100.0	3.9
1-4	800-999	Accidental and violent deaths	13	37.1	5.8
	740-759	Congenital anomalies	5	14.3	12.5
	140-209	Cancer (all forms) (a)	4	11.4	0.7
	320	Meningitis	3	5.7	100.0
	..	Other causes	11	31.4	..
		All Causes	35	100.0	1.1
5-14	800-999	Accidental and violent deaths	9	36.0	3.9
	140-209	Cancer (all forms) (a)	7	28.0	1.3
	740-759	Congenital anomalies	3	12.0	7.5
	..	Other causes	6	24.0	..
		All Causes	25	100.0	0.8
15-19	800-999	Accidental and violent deaths	38	74.5	13.8
	140-209	Cancer (all forms) (a)	3	5.9	0.5
	..	Other causes	10	19.6	..
		All Causes	51	100.0	1.6
20-24	800-999	Accidental and violent deaths	31	81.6	16.8
	340-349	Diseases of central nervous system	2	5.3	6.3
	..	Other causes	5	13.1	..
		All Causes	38	100.0	1.2
25-34	800-999	Accidental and violent deaths	47	61.8	20.8
	140-209	Cancer (all forms) (a)	9	11.8	1.6
	390-398	Diseases of heart	7	9.2	0.6
	400-404				
	410-429	Other causes	13	17.1	..
	..	All Causes	76	100.0	2.4

Principal Causes of Death in Age Groups, 1972—*continued*

Age Group in Years	Inter- national Classifi- cation	Cause of Death	Deaths from Specified Causes in Age Groups		
			Number	Proportion of Deaths	
				In Age Group (Per Cent)	At All Ages (Per Cent)
35-44 ..	800-999	Accidental and violent deaths	20	20.8	8.8
	390-398	} Diseases of heart	22	22.9	2.0
	400-404		23	23.9	4.2
	410-429	Cancer (all forms) (a)	13	13.5	3.1
	140-209	Cerebrovascular diseases	3	3.1	0.9
	430-438	Diseases of respiratory system	15	15.6	..
	460-519	Other causes	96	100.0	2.9
	..	All Causes			
45-54 ..	390-398	} Diseases of heart	64	28.1	5.9
	400-404		63	27.6	11.5
	410-429	Cancer (all forms) (a)	30	13.2	13.3
	140-209	Accidental and violent deaths	21	9.2	4.9
	800-999	Cerebrovascular diseases	5	2.2	3.3
	430-438	Bronchitis, emphysema, asthma	4	1.8	26.6
	490-493	Cirrhosis of liver	41	17.9	..
	571	Other causes	228	100.0	7.1
	..	All Causes			
55-64 ..	390-398	} Diseases of heart	213	40.9	19.5
	400-404		109	20.9	19.9
	410-429	Cancer (all forms) (a)	59	11.3	13.8
	140-209	Cerebrovascular diseases	28	5.4	12.4
	430-438	Bronchitis, emphysema, asthma	31	5.9	20.5
	490-493	Accidental and violent deaths	10	1.9	7.2
	800-999	Pneumonia	71	13.6	..
	480-486	Other causes	521	100.0	16.1
	..	All Causes			
65-74 ..	390-398	} Diseases of heart	314	39.9	28.7
	400-404		167	21.2	30.5
	410-429	Cancer (all forms) (a)	98	12.5	23.0
	140-209	Cerebrovascular diseases	56	7.1	37.1
	430-438	Bronchitis, emphysema, asthma	24	3.1	22.2
	490-493	Accidental and violent deaths	25	3.2	11.1
	800-999	Diseases of arteries	102	12.9	..
	440-448	Other causes	786	100.0	24.4
	..	All Causes			
75 and Over	390-398	} Diseases of heart	476	38.3	43.5
	400-404		233	18.7	54.6
	410-429	Cancer (all forms) (a)	162	13.0	29.6
	430-438	Diseases of arteries	71	5.7	65.7
	140-209	Pneumonia	58	4.7	41.7
	440-448	Bronchitis, emphysema, asthma	52	4.2	34.4
	480-486	Other causes	192	15.4	..
	490-493	All Causes	1,244	100.0	38.5
	..				

(a) Includes Hodgkin's disease and the leukaemias.

Heart Diseases

As the previous two tables indicate, heart diseases (list items 390-398, 400-404, 410-429) are the greatest single cause of death. In the following record of deaths due to heart diseases, 1950 has been chosen as a starting point since earlier figures are not strictly comparable. It can be seen from the table that heart diseases account for over one-third of the 'Deaths From All Causes'.

Deaths from Heart Diseases (All Causes) (a)

Year	Number of Deaths			Death Rate Per 100,000 of Mean Population	Deaths as a Percentage of Deaths from All Causes
	Males	Females	Persons		
1950	413	304	717	257	29.1
1967	663	473	1,136	r302	35.2
1968	680	493	1,173	309	35.7
1969	701	483	1,184	r308	35.8
1970	681	454	1,135	r292	35.8
1971	647	491	1,138	r291	34.5
1972	619	474	1,093	278	33.9

(a) List items 400-416, 420-443 to 1967, 390-398, 400-404, 410-429 from 1968.

Malignant Neoplasms

In the next table, deaths from 'Malignant neoplasms including Hodgkin's disease and the leukaemias' are summarised:

Deaths from all Types of Malignant Neoplasms (a)

Year	Number of Deaths			Death Rate Per 100,000 of Mean Population	Deaths as a Percentage of Deaths from All Causes
	Males	Females	Persons		
1950	159	164	323	115	13.1
1967	302	227	529	141	16.4
1968	273	220	493	130	15.0
1969	282	228	510	r132	15.4
1970	253	229	482	124	15.2
1971	284	268	552	r141	16.8
1972	278	270	548	139	17.0

(a) List item 140-207 to 1967; 140-209 from 1968.

Lung Cancer

There has been considerable interest recently in lung cancer because of its suspected connection with smoking habits. The following table shows deaths attributed to 'Malignant neoplasm of respiratory system' since 1950:

Deaths from Malignant Neoplasm of Respiratory System (a)

Year	Males	Females	Persons	Year	Males	Females	Persons
1950 ..	20	4	24	1965 ..	60	11	71
1958 ..	29	10	39	1966 ..	76	16	92
1959 ..	43	11	54	1967 ..	78	9	87
1960 ..	40	3	43	1968 ..	69	12	81
1961 ..	47	3	50	1969 ..	85	11	96
1962 ..	70	8	78	1970 ..	72	19	91
1963 ..	44	9	53	1971 ..	76	18	94
1964 ..	51	16	67	1972 ..	78	13	91

(a) List items 160-165 to 1967; 160-163 from 1968.

EXPECTATION OF LIFE AND LIFE TABLES

General

Previously, reference was made to the limitations of crude death rates as a measure of mortality. However, a correct measurement of the mortality of the population can be obtained from life tables.

A life table is, in effect, a mathematical model, its starting point being a hypothetical population (say 100,000) of newly-born males or females. Using data for a given period (e.g. single year age distribution of an actual population, deaths at single ages, etc.), the compiler calculates the theoretical number of survivors at each age in the hypothetical population until there are no survivors remaining.

Calculation of Life Expectancy

In the table that follows, l_x is the number of persons surviving at exact age x . From this survivors' table, other measures can then be computed, namely:

- L_x : the average number living between any year x and $x + 1$
 e^o_x : the complete expectation of life (i.e. the average number of years lived after age x by each of a group of persons aged exactly x).

Not only does the l_x column give numbers of survivors at each age but, if accumulated, it gives an approximate measure of the total number of years lived by the life-table population. To obtain a more refined measure of the total number of years lived, it is necessary to accumulate L_x values. These can be obtained by averaging each consecutive pair of l_x values.

Taking the male life table for 1965-67 as an example and using rounded figures:

- Total of all l_x values (0-105) = 6,813,000 years
 Total of all $l_x + 1$ values (1-105) = 6,713,000 years
 Therefore, total L_x values (0-105) = 5,763,000 years

According to the table, 100,000 males live a total of 6,763,000 years. It follows then, that the complete expectation of life (e^o_x) can be taken as 67.63 years as from birth.

The above calculation shows the derivation of e^o_x where x is 0. The same logic applies to all other ages:

Again taking the male life table as an example:

- Total of l_x values (10-105) = 5,835,000 years
 Total of all $l_x + 1$ values (11-105) = 5,738,800 years
 Therefore, total L_x values (10-105) = 5,786,500 years

According to the table, 97,258 males live a total of a further 5,786,500 years. It follows then, that each male aged 10 has an average life expectancy of a further 59.50 years (i.e. $\frac{5,786,500}{97,258}$)

From these examples, it will be seen that e^o_x is simply an average or per capita figure, the two elements involved being the total number of years lived by a given population, and the given population itself.

For the sake of brevity in the table, the following usual values have not been given:

- dx : the number of deaths in the year of age x to $x + 1$ among the l_x persons who enter on that year.
 px : the probability of a person aged x living a year.
 qx : the probability of a person aged x dying within a year.

If required, these values can be computed from the tables as follows:

$$dx = l_x - l_{x+1}$$

$$px = \frac{l_x + l_{x+1}}{2}$$

and $qx = 1 - px$

The next table gives the number of survivors (l_x values) and complete expectation of life (e^o_x values) for Australian males:

Australia: Life Tables, 1965-1967
Survivors (l_x) and Complete Expectation of Life (e^o_x)
Males

Age x	l_x	e^o_x	Age x	l_x	e^o_x	Age x	l_x	e^o_x
0.. ..	100,000	67.63	35.. ..	94,056	36.04	70.. ..	53,749	9.52
1.. ..	97,907	68.07	36.. ..	93,865	35.11	71.. ..	50,785	9.05
2.. ..	97,722	67.20	37.. ..	93,658	34.18	72.. ..	47,746	8.59
3.. ..	97,621	66.27	38.. ..	93,435	33.27	73.. ..	44,647	8.15
4.. ..	97,540	65.32	39.. ..	93,191	32.35	74.. ..	41,510	7.73
5.. ..	97,481	64.36	40.. ..	92,925	31.44	75.. ..	38,358	7.33
6.. ..	97,430	63.39	41.. ..	92,636	30.54	76.. ..	35,214	6.93
7.. ..	97,383	62.42	42.. ..	92,321	29.64	77.. ..	32,102	6.56
8.. ..	97,339	61.45	43.. ..	91,976	28.75	78.. ..	29,046	6.20
9.. ..	97,298	60.48	44.. ..	91,598	27.87	79.. ..	26,070	5.85
10.. ..	97,258	59.50	45.. ..	91,183	26.99	80.. ..	23,194	5.51
11.. ..	97,219	58.53	46.. ..	90,727	26.12	81.. ..	20,431	5.19
12.. ..	97,180	57.55	47.. ..	90,226	25.27	82.. ..	17,801	4.88
13.. ..	97,138	56.57	48.. ..	89,674	24.42	83.. ..	15,320	4.59
14.. ..	97,092	55.60	49.. ..	89,066	23.58	84.. ..	13,008	4.32
15.. ..	97,034	54.63	50.. ..	88,396	22.76	85.. ..	10,885	4.07
16.. ..	96,958	53.68	51.. ..	87,659	21.94	86.. ..	8,967	3.83
17.. ..	96,857	52.73	52.. ..	86,849	21.14	87.. ..	7,268	3.61
18.. ..	96,722	51.80	53.. ..	85,961	20.36	88.. ..	5,792	3.41
19.. ..	96,560	50.89	54.. ..	84,988	19.58	89.. ..	4,535	3.22
20.. ..	96,378	49.98	55.. ..	83,925	18.83	90.. ..	3,486	3.05
21.. ..	96,191	49.08	56.. ..	82,766	18.08	91.. ..	2,629	2.88
22.. ..	96,013	48.17	57.. ..	81,506	17.35	92.. ..	1,944	2.73
23.. ..	95,846	47.25	58.. ..	80,136	16.64	93.. ..	1,408	2.59
24.. ..	95,689	46.33	59.. ..	78,650	15.95	94.. ..	998	2.45
25.. ..	95,544	45.40	60.. ..	77,043	15.27	95.. ..	692	2.33
26.. ..	95,405	44.47	61.. ..	75,307	14.61	96.. ..	468	2.21
27.. ..	95,266	43.53	62.. ..	73,439	13.97	97.. ..	310	2.11
28.. ..	95,126	42.59	63.. ..	71,433	13.35	98.. ..	200	2.01
29.. ..	94,986	41.66	64.. ..	69,289	12.74	99.. ..	126	1.91
30.. ..	94,845	40.72	65.. ..	67,008	12.16	100.. ..	77	1.82
31.. ..	94,703	39.78	66.. ..	64,594	11.60	101.. ..	46	1.74
32.. ..	94,554	38.84	67.. ..	62,052	11.05	102.. ..	27	1.65
33.. ..	94,399	37.90	68.. ..	59,393	10.52	103.. ..	15	1.57
34.. ..	94,233	36.97	69.. ..	56,623	10.01	104.. ..	8	1.49

The following table shows the l_x and e^o_x values for Australian females:

Australia: Life Tables, 1965-1967
Survivors (l_x) and Complete Expectation of Life (e^o_x)
Females

Age x	l_x	e^o_x	Age x	l_x	e^o_x	Age x	l_x	e^o_x
0.. ..	100,000	74.15	35.. ..	96,329	41.56	70.. ..	72,033	12.23
1.. ..	98,361	74.39	36.. ..	96,210	40.61	71.. ..	69,886	11.59
2.. ..	98,206	75.50	37.. ..	96,080	39.66	72.. ..	67,574	10.97
3.. ..	98,127	72.56	38.. ..	95,937	38.72	73.. ..	65,098	10.37
4.. ..	98,068	71.60	39.. ..	95,781	37.78	74.. ..	62,459	9.78
5.. ..	98,018	70.64	40.. ..	95,610	36.85	75.. ..	59,657	9.22
6.. ..	97,977	69.67	41.. ..	95,424	35.92	76.. ..	56,693	8.67
7.. ..	97,942	68.70	42.. ..	95,221	35.00	77.. ..	53,567	8.15
8.. ..	97,910	67.72	43.. ..	94,999	34.08	78.. ..	50,281	7.65
9.. ..	97,882	66.74	44.. ..	94,755	33.16	79.. ..	46,845	7.17
10.. ..	97,856	65.75	45.. ..	94,486	32.26	80.. ..	43,281	6.72
11.. ..	97,830	64.77	46.. ..	94,191	31.35	81.. ..	39,619	6.30
12.. ..	97,806	63.79	47.. ..	93,866	30.46	82.. ..	35,902	5.90
13.. ..	97,781	62.80	48.. ..	93,508	29.58	83.. ..	32,176	5.52
14.. ..	97,755	61.82	49.. ..	93,117	28.70	84.. ..	28,496	5.17
15.. ..	97,723	60.84	50.. ..	92,693	27.83	85.. ..	24,913	4.85
16.. ..	97,682	59.86	51.. ..	92,233	26.96	86.. ..	21,480	4.54
17.. ..	97,636	58.89	52.. ..	91,736	26.11	87.. ..	18,244	4.26
18.. ..	97,582	57.93	53.. ..	91,201	25.26	88.. ..	15,251	4.00
19.. ..	97,521	56.96	54.. ..	90,625	24.41	89.. ..	12,536	3.76
20.. ..	97,460	56.00	55.. ..	90,005	23.58	90.. ..	10,124	3.53
21.. ..	97,398	55.03	56.. ..	89,340	22.75	91.. ..	8,027	3.33
22.. ..	97,335	54.07	57.. ..	88,627	21.93	92.. ..	6,246	3.14
23.. ..	97,273	53.10	58.. ..	87,861	21.12	93.. ..	4,766	2.97
24.. ..	97,211	52.14	59.. ..	87,038	20.31	94.. ..	3,564	2.81
25.. ..	97,148	51.17	60.. ..	86,152	19.52	95.. ..	2,611	2.66
26.. ..	97,085	50.20	61.. ..	85,195	18.73	96.. ..	1,872	2.52
27.. ..	97,020	49.23	62.. ..	84,162	17.95	97.. ..	1,133	2.38
28.. ..	96,952	48.27	63.. ..	83,043	17.19	98.. ..	900	2.26
29.. ..	96,880	47.30	64.. ..	81,829	16.43	99.. ..	602	2.15
30.. ..	96,803	46.34	65.. ..	80,513	15.70	100.. ..	393	2.04
31.. ..	96,721	45.38	66.. ..	79,085	14.97	101.. ..	250	1.93
32.. ..	96,633	44.42	67.. ..	77,534	14.26	102.. ..	155	1.84
33.. ..	96,539	43.46	68.. ..	75,850	13.56	103.. ..	94	1.74
34.. ..	96,438	42.51	69.. ..	74,019	12.89	104.. ..	55	1.64

These tables are extracts from those produced by the Commonwealth Actuary, the source data being supplied by the Commonwealth Statistician and comprising: (i) the number of males and females living at each age last birthday, as shown by the 1966 Census; and (ii) the number of male and female deaths at each age (last birthday) in the years 1965, 1966 and 1967.

There are no life tables prepared on the basis of Tasmanian experience and in most legal and actuarial situations, it is normal to use the Australian Life Tables.

True Death Rates

The true death rate is the reciprocal of the complete expectation of life of a person at birth. In calculating e^o_x where x is 0, the sum of the L_x values was taken as the total number of years lived by the original 100,000 over a period of a century or more. To arrive at the true death rate, the life-table can also be regarded as the experience of a *single year* so that the sum of the L_x

values no longer represents years lived but simply persons 'at risk' in association with 100,000 deaths. By way of illustration, in the male life table the sum of all survivors (L_x values) is 6,763,000 males associated with 100,000 deaths:

$$\text{True Death Rate} = \frac{100,000}{6,763,000} = 14.786 \text{ per 1,000}$$

The true death rate for a given period is unaffected by the particular age distribution of that period, and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables:

Australia: Complete Expectation of Life at Birth and True Death Rates

Period	Complete Expectation of Life At Birth (Years)		True Death Rate (a)	
	Males	Females	Males	Females
1881-1890	47.20	50.84	21.19	19.67
1891-1900	51.06	54.76	19.58	18.26
1901-1910	55.20	58.84	18.12	17.00
1920-1922	59.15	63.31	16.91	15.80
1932-1934	63.48	67.14	15.75	14.89
1946-1948	66.07	70.63	15.14	14.16
1953-1955	67.14	72.75	14.89	13.75
1960-1962	67.92	74.18	14.72	13.48
1965-1967	67.63	74.15	14.79	13.49

(a) Number of deaths per 1,000 in stationary (or life-table) population.

While the complete expectation of life at birth has shown a marked increase in successive tables, the increase at other ages has not been so pronounced. The following table compares the complete expectation of life at selected ages for the period 1891-1900 with that for 1965-67:

Australia: Comparative Complete Expectation of Life

Age x	Expectation of Life (e°_x) at Each Age According to Experience of Period			
	Male Lives		Female Lives	
	1891-1900	1965-1967	1891-1900	1965-1967
0	51.06	67.63	54.76	74.15
5	55.61	64.36	58.64	70.64
10	51.43	59.50	54.46	65.75
15	46.98	54.63	49.97	60.84
20	42.81	49.98	45.72	56.00
25	38.90	45.40	41.69	51.17
30	35.11	40.72	37.86	46.34
35	31.34	36.04	34.14	41.56
40	27.65	31.44	30.49	36.85
45	23.99	26.99	26.69	32.26
50	20.45	22.76	22.93	27.83
55	17.08	18.83	19.29	23.58
60	13.99	15.27	15.86	19.52
65	11.25	12.16	12.75	15.70
70	8.90	9.52	9.89	12.23
75	6.70	7.33	7.37	9.22
80	5.00	5.51	5.49	6.72

It will be noted that e°_x for age five years in the period 1891-1900 was actually higher than for age 0 years. This peculiarity was associated with the extremely high rate of infant mortality then prevailing.

Number of Life Table Survivors

The following table shows the number of survivors (i.e. l_x values) at various ages as presented in Australian Life Tables since 1901 i.e. for the periods 1901-1910, 1953-1955, 1960-1962 and 1965-1967.

Australia: Number of Survivors (l_x) at Selected Ages out of 100,000 Births

Age x	Period			
	1901-1910	1953-1955	1960-1962	1965-1967
MALES				
0	100,000	100,000	100,000	100,000
10	86,622	96,488	97,062	97,258
20	84,493	95,460	96,215	96,378
30	80,844	93,801	94,726	94,845
40	75,887	91,861	92,859	92,925
50	68,221	87,553	88,473	88,396
60	56,782	76,256	77,456	77,043
70	38,275	54,054	54,944	53,749
80	14,330	23,658	24,669	23,194
FEMALES				
0	100,000	100,000	100,000	100,000
10	88,395	97,228	97,664	97,856
20	86,459	96,774	97,278	97,460
30	82,909	96,055	96,649	96,803
40	78,001	94,715	95,481	95,610
50	71,945	91,573	92,713	92,693
60	63,247	84,665	86,537	86,152
70	46,793	69,613	72,505	72,033
80	21,356	39,633	43,453	43,281

The most significant feature is the increased number of survivors at age 10 years and this can be related directly to the dramatic fall in infant mortality rates since the turn of the century. Attention is called also to the wide disparity between male and female survivors at ages 60, 70 and 80 years.

Chapter 7

PRIMARY INDUSTRY—RURAL

LAND TENURE AND SETTLEMENT

Introduction

The area of Tasmania is 16,885,000 acres, all of which had been proclaimed as Crown property when the first settlers arrived in 1803. In the period since their landing, 39.6 per cent of the State's total area has been alienated by grant or sale; the Crown still owns 59.0 per cent and the residual 1.4 per cent is in the process of alienation (i.e. being purchased from the Crown by instalment payments).

Historical

The first concern of the settlers on the Derwent and the Tamar in 1804 was the growing of grain, for which small holdings were adequate; thus by 1820, land obtained as grants from the Crown was confined to areas within easy reach of Hobart and Launceston and less than 70,000 acres had been alienated.

In the 1820s the successful export of wool to Britain created a demand for land in very much larger holdings and annual alienation of Crown land by free grant increased rapidly as shown in the following table:

Area of Land Alienated by Grants in Van Diemen's Land, 1820 to 1843
(⁰000 Acres)

Year	Area Granted	Year	Area Granted	Year	Area Granted	Year	Area Granted
1820 ..	69	1826 ..	60	1832 ..	33	1838 ..	45
1821 ..		1827 ..	77	1833 ..	24	1839 ..	15
1822 ..	<i>n.a.</i>	1828 ..	165	1834 ..	9	1840 ..	10
1823 ..	434	1829 ..	208	1835 ..	9	1841 ..	7
1824 ..	43	1830 ..	108	1836 ..	8	1842 ..	..
1825 ..	(a) 462	1831 ..	206	1837 ..	22	1843 ..	1

(a) Includes 350,000 acres granted to Van Diemen's Land Company.

From the previous table, it can be calculated that the alienation of Crown land by grant exceeded, in total, one million acres by 1825 and two million acres by 1843 (when this early system of free grants had virtually ceased). By 1850 the total area of land alienated was 2.7m acres. The next table summarises land alienations from 1860:

Primary Industry—Rural

Land Alienation from 1860
(*000 Acres)

Year (a)	Land		Year (a)	Land	
	Aggregate Alienated	In Process of Alienation		Aggregate Alienated	In Process of Alienation
1860		3,069	1960	6,386	190
1880		4,233	1965	6,619	204
1900		4,835	1967	6,652	246
1910	4,932	1,104	1968	6,651	229
1920	5,242	964	1969	6,655	236
1930	5,721	542	1970	6,664	248
1940	5,912	423	1971	(b)6,677	(b)246
1950	6,143	365	1972	(b)6,680	(b)240

(a) At 31 December until 1948; at 30 June from 1950.

(b) Estimated.

Present Use of Crown Lands

The next table classifies the area of the State by ownership (i.e. alienated or Crown). Crown Forestry Reservations, apart from one component, is land used or to be used exclusively for forestry purposes; the exception is the forested area of recreation and conservation reservations. The Forestry Reservations account for 33 per cent of the State's area.

Alienation and Occupation of Crown Lands at 30 June
(*000 Acres)

Classification of Land	Area		
	1970	1971	1972
Alienated (Aggregate)	6,664	(a)6,677	(a)6,680
In Process of Alienation	248	(a)246	(a)240
Crown Lands—			
Leased or Licensed—			
Through Lands Department—			
Pastoral	661	} (a)30	581
Closer Settlement	8		
Soldier Settlement	28		(a)30
Short-term	1		
Through Mines Department	54	60	62
Total	751	941	672
Forestry Reservations—			
State Forests	2,783	2,704	2,836
Other Land Reserved for Forestry Purposes (b) ..	2,974	2,885	2,756
Total	5,758	5,589	5,593
Other Crown Land	3,464	3,432	3,700
Total Area of State	16,885	16,885	16,885

(a) Estimated.

(b) Includes estimated forested component of State reserves.

The previous table includes the item 'Forestry Reservations'. Cutting rights, either by exclusive forestry permit or by the award of pulpwood concessions, have been granted over almost 4.5 million acres of this area. A large proportion of the logs for sawmills, paper mills, etc. is obtained from these forestry reservations. Further details of Crown land reserved for forestry appear in the Forestry section of Chapter 8, 'Primary Industry—Non-Rural'.

Although the possibility of rapidly alienating more Crown land for farming purposes on any large scale may seem remote, it should be noted that much of this land is nevertheless of importance to the State's economy, specifically for forestry and tourism purposes.

State Reserves and Conservation Areas

The National Parks and Wildlife Service is responsible for the administration of State reserves and conservation areas. Areas designated as State reserves have maximum protection and include areas previously classified as national parks, scenic reserves or historic sites. Conservation areas are usually set aside for the protection of fauna and flora.

State Reserves

The following gives a brief description of principal State reserves:

Ben Lomond National Park: Is located 45 kilometres south-east of Launceston. This high plateau area includes Legges Tor and Stacks Bluff and is Tasmania's principal skiing area.

Cradle Mountain-Lake St Clair National Park: This is an area of rugged mountain scenery; it contains some of Tasmania's highest peaks (Mt Ossa, Barn Bluff, Mt Pelion West and Cradle Mountain), numerous lakes, deep gorges and several waterfalls. Flora and fauna in the Park are representative of Tasmania's montane species and are in a largely untouched condition. The weather of the area is unpredictable and at times extremely severe—blizzards are common and may occur in mid-summer. The principal walking track extends from Cradle Valley (in the north) to Lake St Clair, a distance of 85 kilometres.

Frenchmans Cap National Park: The Park boundary is three kilometres from the Lyell Highway and about midway between Queenstown and Derwent Bridge. Access to the park is by foot. It is an area of rugged glaciated landscape and is an ideal wilderness area for experienced bushwalkers. Frenchmans Cap, an enormous white quartz peak with a 305 metre face on the eastern side, is the principal feature of the Park.

Freycinet National Park: Occupies the whole of Freycinet Peninsula on the east coast. A principal feature of the Park is the 300 metres high red granite Hazards. The Park provides pleasant walking throughout the year, although during summer water may be scarce. To the south of Freycinet Peninsula is Schouten Island, also a State reserve.

Hartz Mountains National Park: Is located south-west of Geeveston. The main features of the Park are Hartz Mountain, 1,253 metres high, several small picturesque lakes, and the superb eastward view from Waratah Lookout. The Park is renowned for its display of wildflowers during summer.

Maria Island: Is situated off the east coast from Orford and may be reached by chartered fishing boat or aeroplane. Principal attractions include convict ruins from two penal settlements, the main one being at Darlington on the north-west corner of the island. Forester kangaroo, Bennett's wallaby and other Tasmanian fauna have been established on the island and emu have been introduced. At the north-east corner of the island high fossil cliffs rise abruptly from the sea.

Mount Field National Park: This Park, near Maydena and only 75 kilometres from Hobart, is the only southern ski resort in Tasmania and includes spectacular mountain scenery. Principal peaks are Mt Field East and West; other features include Russell Falls, Lake Dobson, several tarns and one of the few stands of native pine forest in the State.

Port Arthur and Tasman Peninsula: This historic and scenic area is possibly the best known and most visited tourist attraction in Tasmania. The area, in addition to the historic convict ruins of the Port Arthur penal settlement, contains many small reserves of either historic or scenic significance. Port Arthur, site of the convict gaol from 1830 to 1877, has a number of historic ruins. Unfortunately, many of the buildings are in an extreme state of disrepair, however, some restoration work has been undertaken. Other historic sites include the old convict coal mines at Saltwater River and Eagle Hawk Neck where guards were stationed and a line of ferocious dogs tethered to prevent escape from the Peninsula. The Eagle Hawk Neck is also renowned for its spectacular coastal landforms e.g. The Blowhole, Devils Kitchen, Tasman's Arch and the Tessellated Pavement.

South West National Park: Is Tasmania's largest State Reserve and covers 473,411 acres of Tasmania's rugged south-west. It is a true wilderness area and encompasses the Western and Eastern Arthur Ranges, Federation Peak, Frankland Range, Mt Anne, Lake Pedder and part of the rugged south coast. Dense scrub, which covers much of the area, frequent harsh weather and a lack of many cleared tracks make this area the domain of the experienced self-contained bushwalker.

A list of State reserves follows:

State Reserves at 31 March 1973

Name of Reserve	Area	Locality	Remarks
	acres		
Baldock Caves (Three)	106	Mole Creek	Cave reserve, wet sclerophyll forest
Batchelors Grave .. .. .	..	Hobart	Historic site
Ben Lomond National Park	39,615	North-east	Highland area
Bluff Battery	5	Hobart	Historic site
Bowen's Monument and Park	7	Hobart	Historic site
Brady's Lookout	2	West Tamar	Scenic
Brown Mt-Remarkable Cave	150	Tasman Peninsula	Scenic coastal area
Bruny Island—			
Cookville-Penguin Island	3	} South-east	Coastal
Fluted Cape-Cloudy Bay	600		
Waterfall Creek	60		
Convict Coal Mines, Saltwater River	529	Tasman Peninsula	Historic, scenic
Corinna	9	West coast	Historic, scenic
Corra Linn	1	Launceston	Scenic
Cradle Mt-Lake St Clair National Park	308,500	W. Central	Mountains, lakes, wet sclerophyll forest
Croesus Cave	115	North Central	Cave reserve
Davey St, No. 161 .. .. .	..	Hobart	Historic
D'Entrecasteaux—Monument	1	South	Historic
Watering Place	3	South	Historic
Derwent Cliffs	12	New Norfolk	Scenic
Devils Gullet	360	Near L. Mackenzie	Scenic river gorge
Eagle Hawk Neck—Foreshore	90	} Tasman Peninsula	Scenic coastal area
Taranna	61		
East Risdon	110	Hobart	
Entally House	85	Central North	Eucalypt species
Fairy Glade	97	Lake Highway	Historic
Ferndene Gorge	7	Penguin	Scenic fernglade
Forth Falls	136	Forth River	Scenic glade
Fossil Island	3	Tasman Peninsula	Waterfalls
Frenchmans Cap National Park	25,240	Central West	Coastal, scenic
Freycinet National Park	18,633	Freycinet Peninsula	Mountain area
George III Monument	25	Southport	Coastal, red granite outcrops
Gordon River	6,200	West coast	Historic shipwreck
Grummet Island .. .. .	..	Macquarie Harbour	Scenic river
Gunns Plains	25	North-west	Historic
Hartz Mountains National Park	21,300	South	Caves
Hastings Caves, Chalet and Thermal Springs	151	Hastings	Scenic, flora
			Caves, scenic

State Reserves at 31 March 1973—continued

Name of Reserve	Area	Locality	Remarks
	acres		
Hellyer Gorge	1,407	North-west	Rain forest, scenic
Henty Glacial Moraine	2	Henty River	Geological
Isle of the Dead	5	Tasman Peninsula	Historic
King Solomon Caves	500	Mole Creek	Caves
Lifey Falls	250	Bracknell	Scenic waterfall
Lookout, Port Arthur	2	Tasman Peninsula	Scenic
Lookout Rock, Bicheno	6	Bicheno	Scenic coastal area
Lyell Highway	18,000	West Central	Scenic, rainforest, mountains
Macquarie Island	30,500	Sub-Antarctic	Scientific reseach, wildlife
Marakooa	176	Mole Creek	Caves, geological
Maria Island National Park	23,900	East coast	Historic, wildlife park
Mariott	300	Maydena	Waterfall
Mt Arthur	10	Tasman Peninsula	Scenic lookout
Mt Barrow Falls	200	North-east	Waterfalls
Mt Barrow National Park	1,134	North-east	Mountain area, wet sclerophyll forest
Mt Field National Park	40,059	South Central	Mountains, rainforest, scenic
Mt Montgomery	740	Ulverstone	Scenic
Mt Strzelecki National Park	9,750	Flinders Island	Highlands, dry sclerophyll forest
Murchison Highway	1,516	West coast	Scenic, rainforest
Notley Gorge	28	West Tamar	Scenic fern gully
Oatlands Mill	1	Oatlands	Historic
Pieman River	8,215	West coast	Scenic river, button grass plains
Point Puer-Crescent Bay	92	Tasman Peninsula	Historic, scenic, coastal
Port Arthur	218	Tasman Peninsula	Historic convict ruins, scenic
Port Davey—Foreshore Islands	1,350	} South-west coast	Scenic coastal area
Richmond Old Gaol	202		Historic
Rocky Cape	1		Coastal heath area, aboriginal middens
Roger River Pass	430	Roger River N.-West	Scenic, rain forest
St Columba	775	Pyengana	Waterfall
St Marys Pass	675	St Marys	Scenic road
St Patricks Head	370	St Marys	Scenic
Sarah Island (Settlement Island)	15	Macquarie Harbour	Historic, scenic
Schouten Island	8,500	East coast	Scenic coastal island
Shot Tower	8	Taroona	Historic
South West National Park	473,411	South-west	Rugged wilderness area
Steppes—Bird Sanctuary	16	Lake Highway	Sclerophyll forest
Homestead	26	Lake Highway	Historic
Stewarts Bay	9	} Tasman Peninsula	Scenic coastal area
Stewarts Bay Esplanade	58		
Tasman Arch (Blowhole)	141		Sandstone geology, scenic
Tasman Monument .. .. .	..	Tasman Peninsula	Historic
Tessellated Pavement	10	Tasman Peninsula	Geological, scenic
Thermal Springs (Kimberley)	2	Kimberley	Geological, scenic
Toll House .. .. .	..	New Norfolk	Historic
Truchanas Huon Pine Reserve	1,000	South-west	Huon pine forest
Waterfall Bay	30	Tasman Peninsula	Scenic coastal area
Waubadebar's Grave .. .. .	..	Bicheno	Historic
Zeehan-Renison Bell	272	West coast	Scenic road
York Town	4	North Tamar	Historic
Total Area	1,050,557	..	..

In addition to the State Reserves, listed in the preceding table, there are many State Conservation Areas. These are dealt with in the next section.

Conservation Areas

Areas of Crown or privately owned land may be designated as a conservation area. Wildlife and flora in conservation areas cannot be disturbed without specific approval from the National Parks and Wildlife Service. The following lists the State's major conservation areas and indicates whether they are on privately owned or Crown land.

Major Conservation Areas (a) at 31 March 1973

Name of Area	Area	Locality	Remarks
	acres		
Deal Island	4,000	Bass Strait	State, coastal area
Derwent River	3,875	Lower Derwent	State and part private, estuarine area, waterfowl
Four Mile Creek	1,500	East Tamar	Commonwealth, estuarine area
Glenorchy Water Reserve	1,759	Glenorchy	Private and council, dry sclerophyll
Hunter Island	21,000	Far North-west	State, mutton bird rookery
Lavinia	3,814	King Island	State, coastal heath and dunes
Logans Lagoon	4,700	Flinders Island	State, coastal area
Moulting Lagoon	1,230	North of Swansea	State, coastal area, waterfowl
Reekara	6,000	King Island	Private, sandy heath
Sandspit River	1,060	East coast	Private, coastal estuarine area, birds
Sea Elephant River	1,260	King Island	Mainly private, coastal dunes and heath
South West Conservation Area	1,112,589	South-west	State, rugged wilderness area
East Sisters Island	1,000	} Furneaux Group	State, mutton bird rookery
West Sisters Island	1,500		
Three Hummock Island	23,000		State, mutton bird rookery
Tooms Lake	56,000	Central east	State, dry sclerophyll forest and lake
Wayatinah Lagoon	4,470	Wayatinah	H.E.C., freshwater lagoon

(a) Total acreage of conservation areas at 31 March 1973 was 1,285,191 acres.

War Service Land Settlement

After both World War I and World War II, government schemes were operated with the aim of assisting ex-servicemen to settle on the land. The following section deals only with the scheme initiated to settle on the land eligible ex-servicemen from the 1939-45 War and the Korean and Malaysian operations.

Finance for capital expenditure under the scheme has been provided under the authority of the Commonwealth Parliament's Loan (War Service Land Settlement) Acts but the State Government is the administrative authority for actual operations, control being exercised through the War Service Land Settlement Division of the Agricultural Bank. The basic work of the Division involved land acquisition and the development of rural holdings on which eligible ex-servicemen were then settled. Work has now been completed and all holdings have been made over to settlers.

The following table summarises progress in physical terms (farms allotted, etc.) and in financial terms (loans to settlers, payments for acquisition, etc.):

War Service Land Settlement
1939-1945 War and Korea-Malaya Operations
Summary to 30 June 1972

Operations		Commonwealth Expenditure (Aggregate)	
Particulars	Total to 30 June 1972	Advances in Respect of Tasmania	Total to 30 June 1972 (\$'000)
Land Acquired (Net) .. acres	452,733	For Acquisition of Land	5,069
Farms Allotted—		For Development and Improvement of Land ..	35,934
Number	486	Contribution to Excess Cost over Valuation ..	31,768
Area acres	451,460	Settlers' Credit Facilities	16,285
		Concessions, Remissions, Moneys Written Off—	
		Interest	807
		Principal	523
		Living Allowances for Settlers	491
		Irrigation Projects	6
		Cost of Administration of Credit Facilities ..	1,021
		Total	91,904

Of the farms allotted to 30 June 1972, the largest concentrations were at King Island, Flinders Island, the Lawrenny Estate and the Montagu Project. The 486 farms both allotted and occupied at 30 June 1972 comprised: dairy farms, 193; fat lamb farms, 171; fat lamb and beef farms, 71; orchards, 31; wool-sheep farms, 20.

Advances to Primary Producers

Although the principal efforts in land settlement since World War II have been made under the War Service Land Settlement Scheme, the State Government has also operated its own loan schemes to assist primary producers. However, present economic problems facing rural industries have directed government attention towards rural reconstruction. The State Government is involved in the administration of three rural reconstruction schemes under the *Marginal Dairy Farms Reconstruction Act 1971*, *Rural Reconstruction Act 1971* and the *Fruitgrowing Industry Reconstruction Act 1972*. Funds are provided by the Commonwealth for implementation of these three schemes; administrative costs are borne by the State. The following table shows particulars of advances under various Acts:

Advances to Primary Producers by the Agricultural Bank

Act	Total Advances Made During 1971-72	Total Advances to 30 June 1972	Balances Outstanding at 30 June 1972	
			Number	Amount
	\$'000	\$'000		\$'000
State Advances Act (including Rural Credits) 1935 ..	1,549	18,398	1,511	6,944
Commonwealth Re-establishment and Employment Act 1945 .. .. .	..	834	42	24
Primary Producers' Relief Act—				
1947 .. .. .	..	595	5	3
1962 .. .. .	..	19	1	1
1968 .. .. .	..	587	102	459
1970 .. .. .	..	177	41	177
1971	100	100	18	100
Marginal Dairy Farms Reconstruction Act	81	81	7	81
Rural Reconstruction Act	155	155	8	155
Closer Settlement (Soldiers) Act	1	191	59	61
Closer Settlement Act	19	700	139	580
Fire Damage Relief Act 1967 .. .. .	..	2,599	669	2,163
Total	1,905	24,436	2,602	10,748

The main forms of assistance now available are: (i) Under Part III of the *State Advances Act* 1935, loans may be made to persons in rural industries for the purchase of farm properties, discharge of mortgage or for making improvements. Loans may be made for periods up to 30 years at an interest rate determined by the Treasurer. In July 1970, the rate was increased from 6.0 per cent to 7.0 per cent. The present limit on any single advance is \$50,000. (ii) Under Part IV of the Act (Short Term Rural Credits), loans may be made to persons engaged in prescribed rural industries for the purchase of stock, plant, seeds and manures and for other purposes considered necessary for carrying on their industry. There is no statutory limit to the amount which may be advanced to each applicant. Usual period of loans are: plant, 10 years; stock, five years; land development, 10 to 15 years; structural improvements, 20 years; working expenses, one to three years. (iii) Under the various rural reconstruction Acts loans are made for rural reconstruction, debt reconstruction, etc.; see the next section for further details.

The *Fire Damage Relief Act* 1967 was part of the State Government's reaction to the disastrous bushfires of February 1967 when 650,000 acres of farm land, bush and forest were devastated in 14 southern municipalities; the fire caused severe stock and fodder losses and destroyed farm homes, barns, fences, etc. Assistance for the rebuilding of farmers' homes was provided under the general scheme applicable to all citizens but other types of farm rehabilitation were provided for in a loan scheme administered by the Agricultural Bank.

RURAL RECONSTRUCTION

Introduction

Economic growth, in general, brings increased prosperity to the community, however, it can create problems for particular sectors of the economy. One such problem, common to all economically developed countries, is the tendency for farm incomes to lag behind non-farm incomes. Increased prosperity does not result in similar increases in demand for farm products. The problem is compounded by rising prices of inputs e.g. machinery, building materials, labour, etc. relative to the prices paid for farm products. The divergence between prices paid by farmers for inputs and prices received for output is commonly referred to as the 'cost-price squeeze'. A common response to cost-price squeeze is to increase productivity and lower unit production costs. However, this solution tends to aggravate the problems of over-supply and may cause further lowering of prices for rural products.

The problem of low income farmers can therefore be attributed to two main factors: (i) 'cost-price squeeze' factor; and (ii) failure of marginal farmers to move out of the industry. When marginal producers remain in the industry then a problem of low income farmers emerges. To solve this problem it is necessary to restructure farms and to reduce the number of operators in the industry. The immobility of farmers and farm labour and the nature of farm assets necessitates Government intervention to ensure that the adjustment process can be carried out. Farmers and farm workers often possess specialised skills necessary for farming but not useful in other forms of employment. This means that considerable re-training may be necessary if the transition from the farming occupation to work in secondary industry or elsewhere is to be achieved. Further problems, such as family ties, dislike of urban living, cost of leaving the farm and low realisation prices on farm assets all impede exit from the rural industry.

The long term solution to the farming problem involves measures that will: (i) facilitate restructuring of economically viable farms; and (ii) assist farmers wishing to leave their properties and help overcome the serious obstacles which impede the move. Government assistance to readjustment within the rural sector is now under way with the introduction of four special schemes known as: (i) Rural Reconstruction; (ii) Rural Reconstruction Employment Training; (iii) Marginal Dairy Farms Reconstruction; and (iv) Fruitgrowing Reconstruction Scheme. These measures are designed to alleviate hardships brought about by changing economic circumstances and to speed up the restructuring of farms in the rural industry.

Rural Reconstruction Act

On 4 June 1971 an agreement was signed between the Commonwealth of Australia and the State of Tasmania, the object being the implementation of a national scheme of rural reconstruction; in essence, the Commonwealth will provide the financial assistance but the detailed administration is vested in the State. Similar Commonwealth-State agreements were entered into by the other Australian States on the same date. In October the Tasmanian Parliament passed the *Rural Reconstruction Act 1971* which established the mechanism for administering the scheme in Tasmania.

The original amount made available for national application during the period 1970-71 to 1974-75 was \$100m of which Tasmania was to receive \$3.3m. Subsequently the Commonwealth made a further \$51m available for use during 1973-74, Tasmania's share of the additional amount being \$1.7m. The increase followed reviews in April 1972 when Tasmania received an extra \$0.5m and March 1973 when the State gained a further \$1.2m.

The concepts underlying the scheme were originally framed with the particular circumstances of the Australian sheep and wheat industries in mind. However, the operation of the scheme now provides for the inclusion of all types of agricultural industry except for 'farm build-up' cases covered under the *Marginal Dairy Farms Reconstruction Act 1971*.

Debt Reconstruction

This is to apply to the farmer who has sound prospects of successful operation but who has used all his cash resources and cannot meet his financial commitments.

The assistance can encompass a rearrangement and/or a composition of debts, the negotiation of a concessional rate of interest in substitution for existing rates, and advances of additional funds for carry-on expenses, the purchase of livestock and further property development. The rearrangement and/or composition of debts may be accomplished by the Reconstruction Authority advancing money to pay existing creditors in whole or in part; or making arrangements with creditors to refrain from taking action against a debtor for a specified time; and in some cases asking creditors to defer or write-off part of their debts.

Advances made under the scheme may be for a maximum term of 20 years and there is provision for an initial period where no principal repayment may be required; interest will be at an average of four per cent.

Farm Build-up

The basic intention is to assist in the build-up of properties to a size commensurate with economic operation; the concern is with the amalgamation of adjoining holdings.

When an adjoining property is sold to a farmer, the Reconstruction Authority may make a grant to cover the value of acquired assets which are not useful to the enlarged property (e.g. the farm dwelling). Advances may also be made by the Authority for carry-on expenses, plant, livestock and property development if these demands are associated with the additional land. Advances will be restricted to a maximum term of 30 years and interest to a minimum of 6.25 per cent.

If a farmer participates in the debt reconstruction scheme, he is not thereby disqualified from the farm build-up scheme if circumstances warrant his inclusion.

Rehabilitation

Loans of up to \$3,000 may be made to those obliged to leave a rural industry. Those eligible comprise: (i) those selling a property to an adjoining owner who has been assisted under the farm build-up scheme; (ii) those unable to secure assistance under the debt reconstruction scheme because of poor long-term prospect of success.

Re-training

Certain farmers, family members and farm employees will be eligible for re-training under a scheme to be administered by the Department of Labour.

Tasmanian Authority

In Tasmania, the administering authority is the Rural Reconstruction Board, composed as follows: chairman (the manager of the Agricultural Bank); one representative each from the Agricultural Department and the State Treasury; a public accountant with farmers as clients; and two practical farmers. The machinery of the Agricultural Bank is available to help in the administration of the scheme.

At the end of March 1973, the following progress had been made: (i) debt assistance—344 applications received; 111 applications involving \$2,234,000 assistance approved; (ii) farm build-up—149 applications received; 36 applications involving \$701,000 assistance approved; and (iii) rehabilitation loans—nine applications received; five applications involving \$13,000 assistance approved. Thirteen persons had been recommended for the re-training scheme.

Marginal Dairy Farm Reconstruction Scheme

To achieve some stability in the dairying industry the Commonwealth Government introduced, in 1970, the Marginal Dairy Farm Reconstruction Scheme. The Commonwealth agreed to make available \$25m to the States over a four-year period commencing in July 1970 for implementation of the scheme. Half of the money made available by the Commonwealth is by way of grant and the other half by way of loans repayable over 23 years in half yearly instalments. The State Government is required to administer the scheme; in Tasmania management of the scheme is vested in The Board of Management of the Agricultural Bank of Tasmania.

The *Tasmanian Marginal Dairy Farms Reconstruction Act 1971* ratified the scheme for Tasmania and in December the State-Commonwealth agreement was signed. The scheme provides for dairy farmers, who produce milk and cream for manufacturing purposes and whose farms have insufficient potential to become economic units, to voluntarily dispose of their properties at market value, to the State Government. The land and any useful improvements are then sold on the basis of the most practicable and economic land use for farm build-up purpose.

Eligible Dairy Farmers

A marginal dairy farm is defined as a rural property: (i) from which not less than one half of the gross income is derived from the production of milk and milk products; (ii) where the production is derived from not less than 20 cows; and (iii) which, if used only for dairying and related purposes, is not reasonably capable of producing more than 12,000 lb of butterfat or its equivalent. An owner of a property, which meets these requirements, may offer his farm for sale to the State under the scheme. If the application is approved then the owner is paid the market value of the farm or a mutually agreed price. Only the land and structural improvements are acquired by the Government; the farmer has to make his own arrangements for the disposal of livestock and plant.

State Disposal of Marginal Dairy Farms

The purchaser of a marginal dairy farm from the State must fulfil the following conditions: (i) he must already own land suitable for amalgamation with the property to be purchased; (ii) if the property is to be used for dairying, the buyer must have owned his existing property for at least two years; (iii) after purchase the amalgamated properties must be capable of producing the equivalent of 15,000 lb but not more than 30,000 lb of butterfat; and (iv) the properties must be within reasonable working distance from each other. An applicant may purchase more than one marginal dairy property or two or more farmers may acquire portions of such a property providing each amalgamation creates an economic unit and the preceding conditions are met. A buyer of a marginal dairy farm is not required to pay for structural improvements not required by him for satisfactory operation of the property.

Activities of the Board

By 30 June 1972 41 applications for assistance had been received of which eight were approved. The eight properties purchased cost \$118,000. Advances to landowners buying marginal dairying farms totalled \$81,000.

Fruitgrowing Reconstruction Scheme (Tree Removal)

Serious economic problems confronting the Australian fruit industry led to the establishment, by the Commonwealth Government, of a scheme to assist reconstruction of the fruit industry. In Tasmania the scheme applied only to apple or pear growers in serious financial difficulties. The *Tasmanian Fruitgrowing Industry Reconstruction Act 1972* authorised implementation of the Commonwealth-State fruitgrowing reconstruction agreement and made the State Rural Reconstruction Board responsible for administering the scheme.

Total financial assistance provided under the scheme to all States by the Commonwealth was limited to \$4.6m. Administrative expenses incurred are borne by the State.

Eligible Fruitgrowers

Growers involved in the apple or pear industry in Tasmania could apply for assistance if the Board was satisfied that the number of trees which the grower had constituted a commercial operation and either the grower: (i) was predominantly a horticulturist in severe financial difficulties and intended to remove all of his trees and leave the apple or pear industry; or (ii) did not have adequate resources to withstand the short-term economic effects of removal of surplus trees but in the opinion of the Board his farm enterprise had sound long-term prospects after tree removal and putting the released land to an alternative use. A time limit was placed on applications for assistance—they had to be lodged not earlier than 14 July 1972 and no later than 30 June 1973 and the trees had to be removed by 31 October 1973. Trees removed after that date did not qualify for compensation. Any person assisted under this scheme could also apply for assistance under the Rural Reconstruction Scheme.

Type of Assistance

Assistance was based on tree removal and compensation up to a maximum of \$350 per acre with an overall average of not more than \$200 per acre was payable in respect of all apple or pear trees approved for removal. When determining the amount of compensation, consideration was given to the age, variety and condition of the trees, the markets and any other matters deemed relevant to the case.

Growers, who received compensation and remained on their holdings, had to undertake not to re-plant apple or pear trees on their properties within a period of five years. To ensure compliance compensation is provided in the form of an interest bearing loan—the interest is rebateable annually if the grower observes the undertaking not to replant.

Activities of the Board

At the end of March 1973, the following progress had been made: (i) applications—received 151; investigated, 56; approved for partial tree removal, 14; approved for complete tree removal, 34; (ii) assistance approved for—partial tree removal, \$38,000; complete tree removal, \$75,000; and (iii) total area of trees approved for removal, 787 acres.

RURAL INDUSTRY**General**

The Tasmanian rural economy is marked by great diversity and even allowing for the special regional adaptations made necessary by soil, climate, terrain and altitude, there are many rural holdings which individually exhibit an extremely varied range of activities.

The present pattern of farming puts an increasing emphasis on livestock rearing for meat production. This is borne out by the continuing increase in the area of sown and semi-improved pasture. Wool and dairy products are still very important but production of these has tended to level off because of depressed prices; (there was nevertheless a marked rise in wool prices during 1973). Orchardring, hop growing and growing of vegetables for processing are also of considerable significance but each has also suffered from severe marketing difficulties in recent years. This has resulted in a number of small holdings being absorbed into larger and more economic farm units.

The next section deals with the early history of Tasmanian farming and emphasises the importance of wheat growing in the early colonial era.

Historical

The pattern of early agricultural development can be inferred from the following summary of official farm statistics:

Area Under Crop: Van Diemen's Land, 1818-1841
(Acres)

Year	Wheat	Barley	Oats	Peas	Beans	Pota- toes	Turnips	English Grasses	Tares	Total Crops
1818 ..	5,049	214	<i>n.a.</i>	149		268	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(a)
1828 ..	20,357	3,864	1,573	646	35	1,292	1,296	4,970	..	34,033
1838 ..	41,760	13,495	21,576	868	128	3,532	9,054	17,150	437	108,000
1841 ..	63,734	9,010	16,471	738	102	4,185	15,943	22,082	349	132,614

(a) Not available on a comparable basis.

Livestock statistics for the same period are summarised as follows:

Livestock: Van Diemen's Land, 1818-1841

Year	Horses	Horned Cattle	Sheep	Goats
1818	267	12,356	127,883	..
1828	2,034	84,476	553,698	708
1838	9,656	75,087	1,214,485	2,400
1841	12,000	90,498	1,167,737	2,630

In 1842 the island colony was Australia's principal wheatgrower and, with nearly 80,000 acres sown to this crop, contained nearly half the Australian wheat acreage. Throughout the 19th century wheat was a principal cash crop but eventually competition from the other States (both in type and price) caused a decline, as shown in the following table:

Wheat for Grain: Area and Total Production, Selected Years

Year	Area	Production	Year	Area	Production
	acres	'000 bushels		acres	'000 bushels
1860-61	66,450	1,416	1930-31	19,107	391
1870-71	57,382	897	1940-41	8,038	140
1880-81	50,022	750	1945-46 (b) ..	4,982	67
1890-91	32,452	643	1950-51	5,318	95
1898-99 (a) ..	85,287	2,304	1960-61	6,912	148
1900-01	51,825	1,110	1969-70	14,732	353
1910-11	52,242	1,121	1970-71	11,067	283
1920-21	28,284	566	1971-72	11,293	307

(a) Peak production year.

(b) Record low production year.

The home-grown product is now used to make high quality biscuit flours (for which it is well suited) and for stock feed.

Before the 1850s, most farm land had been confined to the eastern half of the State where open plains and open forest country encouraged penetration. Further development required the clearing of more thickly timbered land, the principal attraction being the fertile chocolate coloured volcanic soils of the north-west coast; at the same time, the discovery of the basalt lands in the Scottsdale-Ringarooma area was followed by settlement in the north-east. In the 1840s pioneers began to develop orchards, mainly for apples, in the heavily timbered Huon Valley; later in the 19th century orchards were established in the Tamar and lower Mersey Valleys. In the decade after Federation, annual apple production first exceeded one million bushels (as compared with the 1963-64 record crop of $8\frac{1}{2}$ million bushels).

In the 20th century, the State and Commonwealth Governments played major parts in encouraging rural development and settlement, comprehensive soldier settlement schemes being introduced after both World Wars. In the last decade, major private schemes have concentrated on pastoral development in the far north-east.

Rural Industry Statistics

Sources of Information

The statistics are, in the main, compiled from census returns of agricultural, pastoral and dairying production collected from rural holdings in Tasmania at 31 March each year. In conjunction with the general census, supplementary collections from farms are conducted where the harvesting of certain crops has not been completed by 31 March (e.g. apples, potatoes).

Additional information is also obtained from various marketing and other authorities and from a number of entirely separate collections covering such data as slaughterings and meat and dairy production.

Period Covered

Data relating to area sown, production and number of holdings growing crops are, in general, for the season ended 31 March. In cases where harvesting has not been completed by 31 March (e.g. potatoes), total production is nevertheless collected and included in published figures. Livestock numbers are also reported as at 31 March.

Rural Holdings

A 'rural holding' is defined as a piece of land of one acre or more in extent used for the production of agricultural products or for the raising of livestock and the production of livestock products. Care should be exercised in drawing conclusions from changes in the number of rural holdings over a series of years. There are many small sub-commercial holdings, a proportion being no more than large residential blocks with perhaps a small plot of potatoes or other crops, or carrying a house-cow or poultry. It is very difficult, in some cases, to determine whether or not they should be regarded as rural holdings within the definition and over a period of time some variation in treatment has occurred.

Area of Crops

Total area of land sown or planted to crops is shown irrespective of whether the whole area was subsequently harvested or whether a portion or the whole of the crops failed and was not harvested. Where two successive crops are grown on the same land during the one season the land is included twice in the area of crops.

Value of Production

The statistics in the following sections refer mainly to areas sown to crops and quantities produced. The value of the various crops is shown under 'Value of Production' in Chapter 8.

Classification of Rural Holdings By Type of Activity

Because many Tasmanian holdings are devoted to more than one specific type of farming activity it is difficult to present, in summary form, the essential characteristics or structure of rural industry in the State today. Before considering in detail crop areas, production statistics and livestock numbers, it is logical to examine the main 'line' of each farm and to determine the principal activities; from this study can be evolved a classification of holdings by type of activity. In 1959-60 the first attempt was made at classifying rural holdings in all States on a uniform basis. Similar classifications were produced for 1965-66 and 1968-69 and an annual series for subsequent years will be produced (although later figures are not available at time of printing).

The next table is a summary of the main farm types for the years 1959-60, 1965-66 and 1968-69:

Holdings (a) Classified According to Type of Activity, Selected Years

Year	Type of Holding						
	Sheep	Cattle		Fruit	Multi-Purpose	Other	Total Classified
		Meat	Milk				
1959-60 ..	1,984	153	3,038	1,527	743	684	8,129
1965-66 ..	1,547	276	3,026	1,234	924	857	7,864
1968-69 ..	1,423	468	2,678	906	652	820	6,947

(a) Excludes 'sub-commercial' and unused holdings.

A geographical distribution of holdings classified according to type of activity in 1968-69 will be found in the 1973 *Year Book*; in the same text appears a description of the principles applied in making the classification.

Size of Rural Holdings

A classification of rural holdings by size is carried out at irregular intervals (the most recent being for the year 1972). The following table compares the size of holdings in selected years:

Classification of Rural Holdings by Size

Size of Holdings (Acres)	Number of Holdings			Area of Holdings ('000 Acres)		
	1928	1969	1971	1928	1969	1971
1 and Under 50	3,164	2,241	2,063	58	47	44
50 and Under 100	2,108	1,457	1,339	147	105	97
100 and Under 500	4,779	4,624	4,463	1,095	1,054	1,031
500 and Under 1,000	726	950	954	594	659	665
1,000 and Under 5,000	775	888	886	1,600	1,862	1,845
5,000 and Under 10,000	146	124	128	1,018	838	860
10,000 and Under 20,000	67	68	59	925	918	794
20,000 and Under 50,000	29	27	28	812	742	763
50,000 and Over	5	5	6	384	362	403
Total	11,799	10,384	9,926	6,633	6,591	6,501

Number of Holdings with Crops or Livestock

At 31 March 1972, there were 9,807 rural holdings (compared with 11,117 in 1962). The following table shows the number of holdings growing selected principal crops or carrying livestock; this gives some indication of farming activities on a broad basis only, since the same holding may be included more than once in the figures (in an extreme case, the one holding could be included 11 times):

Number of Holdings Growing Principal Crops or Carrying Livestock

Particulars	1961-62	1968-69	1969-70	1970-71	1971-72
Number of Rural Holdings	11,117	10,384	10,159	9,926	9,807
Holdings—					
Growing—					
Grain (a)—					
Barley	323	450	475	517	475
Oats	367	421	307	305	238
Wheat	222	239	203	160	160
Hops	104	108	102	81	74
Vegetables (b)—					
Potatoes	2,156	1,410	1,174	985	840
Onions	n.a.	26	34	39	61
Fruit (b)—					
Orchard	1,382	1,108	920	1,007	874
Small Fruit	533	348	353	359	335
Carrying—					
Cattle	8,825	8,545	8,405	8,384	8,363
Sheep	5,675	5,098	4,815	4,611	4,257
Pigs	3,593	2,400	2,302	2,134	1,888

(a) Twenty acres and over.

(b) One acre and over.

It should be noted that a fall in the number of holdings engaged in a particular activity does not necessarily involve decreased total activity. Holdings carrying cattle have decreased over the last 10 years while cattle numbers have doubled in the same period. However, the decline in holdings growing small fruit has been matched by an actual fall in crop acreage and in total production.

Land Utilisation on Rural Holdings

Rural holdings at present occupy 38.2 per cent of Tasmania's total area; details of land utilisation follow:

Land Utilisation on Rural Holdings
(Acres)

Particulars of Usage	1961-62	1969-70	1970-71	1971-72
Crops (Excluding Sown Pastures Harvested) (a)	219,977	233,837	199,306	164,614
Fallow (b)	72,866	63,857	56,554	27,407
Sown Pastures (c)	1,418,760	2,003,812	2,070,973	2,106,026
Balance (Used Mainly for Grazing)	4,839,300	4,215,027	4,174,651	4,143,822
Total Area of All Holdings	6,550,903	6,516,537	6,501,486	6,441,869

(a) Excludes area of sown pasture harvested; includes also orchards and small fruits.

(b) Excludes short period or summer fallow.

(c) Includes area harvested.

Definition of 'Crops'

'Crops,' as specified in the previous table, refers only to cultivated fields and orcharding land. However, it is reasonable to regard as also a crop the yield obtained from harvesting sown pastures. The next table shows the total area of crops, using this wider definition and taking account of double-cropping:

**Total Area of Crops
(Acres)**

Area	1961-62	1969-70	1970-71	1971-72
Area Used for Crops (a)	219,977	233,837	199,306	164,614
Area Double Cropped	2,761	9,791	8,390	6,904
Sown Pastures Harvested	163,017	183,729	224,593	(b)199,567
Total Area of Crops	385,755	427,357	432,289	371,085

(a) As shown in previous table.

(b) See text below.

Prior to 1971-72, harvested areas included those cut for hay, seed, silage or green feed. In 1971-72, no details of the area cut for silage and green feed were collected. In this and the previous table, figures have been revised to reflect the change in classification of lucerne from a crop to a sown pasture.

Definition of 'Sown Pasture'

The next table shows the total area of sown pasture and distinguishes between areas *cut* for various purposes and areas simply grazed:

**Sown Pasture: Classification of Total Area
(Acres)**

Particulars	1961-62	1969-70	1970-71	1971-72
Pastures Harvested—				
Hay	136,460	161,641	201,306	194,475
Seed	3,818	4,530	5,091	5,092
Green Feed or Silage	22,739	17,558	18,196	n.a.
Total Pastures Harvested	163,017	183,729	224,593	199,567
Pastures Not Harvested	1,255,743	1,820,083	1,846,380	1,906,459
Total Sown Pasture	1,418,760	2,003,812	2,070,973	2,106,026

Trend in Land Utilisation

The total area of rural holdings is still approximately the same as it was at the end of World War I. The most striking change is the rapid development of sown pasture, the previous table showing a 48 per cent increase in the decade ending 1971-72. In 1944-45 the area of sown pasture was under 500,000 acres; it passed 1,000,000 acres in 1955-56 and exceeded 2,000,000 acres in 1969-70. A substantial increase has also occurred in the area of sown pasture harvested.

Grain crops are no longer the dominant item and many primary producers, through their development of sown pasture, have become grassland farmers with the mower and pick-up baler as their main 'harvesting' machines (as opposed to the reaper and binder on ploughed fields). The trend to grassland farming has meant greatly increased capacity to carry stock, the numbers of sheep having doubled and cattle trebled since World War II. In the decade ending 1971-72, sheep increased by 20 per cent from 3.5 million to 4.2 million, cattle by 95 per cent from 425,000 to 829,000. (Sheep numbers, reached their highest level, 4.6 million, in 1969-70.)

Temporary and Permanent Pasture

It should be noted that some of the areas included as sown pasture are 'temporary' in the sense that they may be put under crop after some years of use for grazing. In the same sense, specific areas used for crops in any year are also 'temporary' since they may later be converted to sown pasture. This rotational pattern, characteristic of much of Tasmania's mixed farming, obviously is designed to maintain soil fertility at a high level and to guard against the soil exhaustion associated with the earlier era of intense cultivation of cash crops. 'Ley' farming is the technical term for this rotational method.

Farm statistics for 1971-72 show the area of sown pasture as 2,106,026 acres and indicate that the trend of the previous decade is being maintained.

The Tasmanian Department of Agriculture in 1970 released a new perennial rye-grass (Tasdale) superior to the widely-sown New Zealand perennial rye-grass. The main seed varieties produced on Tasmanian farms during the past five years are listed in the following table:

Pasture Seed Production (a)
(Cwt)

Type of Grass	1967-68	1968-69	1969-70	1970-71	1971-72
Clover—White	394	214	512	1,040	892
Red	5	11	352	616	57
Subterranean	4	237	2	..	..
Other .. .. .	..	13	19	49	285
Ryegrass—Perennial	3,971	9,227	6,296	6,010	4,191
H.1.	298	2,918	899	1,062	1,108
Italian	457	902	439	662	1,122
Cocksfoot	29	40	54	454	38
Lucerne .. .. .	..	..	41	12	94
Other	215	1,042	265	708	709
Total	5,373	14,604	8,879	10,613	8,496

(a) Includes all pasture seed harvested, whether as a separate crop or from an area sown to grain crops.

Agriculture

Sufficient has been said on land utilisation to emphasise the trend to grassland farming. In the summary table below, showing the area devoted to the principal crop types, the area of sown pasture *cut* for hay, seed, silage or green feed is attributed to the appropriate crop, e.g. as a component of hay and green feed.

Area of Principal Crops: Summary
(Acres)

Crop	1961-62	1969-70	1970-71	1971-72
Section 1 (a)				
Cereals for Grain	61,773	66,676	66,308	58,287
Legumes Mainly for Grain	8,529	5,948	6,720	3,738
Crops for Hay (b)	20,778	10,162	10,346	6,116
Crops for Green Feed or Silage (c)	80,312	106,813	78,422	54,650
Fruit—Orchard Tree	19,641	19,687	19,324	17,761
Berry and Small	2,218	1,466	1,513	1,569
Vegetables for Sale for Human Consumption	27,141	28,298	21,052	24,630
Hops	1,474	1,472	1,310	1,333
Oil Poppies	(d)	(d)	1,402	2,001
Other Crops	872	3,108	1,300	1,434
Total Section 1 (e)	222,738	243,630	207,697	171,519

Area of Principal Crops: Summary—continued
(Acres)

Crop	1961-62	1969-70	1970-71	1971-72
Section 2				
Pasture Harvested for Hay, Seed, Green Feed or Silage (f)—				
Pasture Hay	136,460	161,641	201,306	194,475
Pasture Seed	3,818	4,530	5,091	5,092
Pasture Harvested for Green Feed or Silage	22,739	17,558	18,196	n.a.
Total Section 2	163,017	183,729	224,593	(g)199,567
Total Area of Crops	385,755	427,356	432,289	(g)371,085

(a) Section 1 excludes pastures harvested for hay, seed, green feed or silage; details for these are given in section 2.

(b) Excludes pasture hay; see section 2.

(c) Includes vegetables for stock feed but excludes pastures harvested for green feed or silage; see section 2.

(d) Prior to 1970-71 oil poppies were included in 'Other Crops'.

(e) Includes land double cropped; in 1971-72 area involved was 6,904 acres.

(f) Includes lucerne harvested.

(g) Excludes pasture harvested for green feed or silage.

Details of individual crops, their area, production and yield per acre, are shown in the next table:

Crops: Area, Production and Yield Per Acre

Crop and Unit of Quantity	Average, Ten Years Ended 1970-71			Year 1971-72		
	Area (Acres)	Production		Area (Acres)	Production	
		Total	Yield Per Acre		Total	Yield Per Acre
CEREALS FOR GRAIN (BUSHELS)						
Barley	22,051	781,316	35.43	31,075	1,221,149	39.30
Oats	29,299	694,114	23.69	15,893	388,557	24.45
Rye	122	1,857	15.26	26	105	4.04
Wheat	14,734	372,634	25.22	11,293	307,046	27.19
LEGUMES MAINLY FOR GRAIN (BUSHELS)						
Beans—Navy	412	9,069	22.01	422	9,534	22.59
Horse	412	9,069	22.01	169	4,259	25.20
Field Peas—Blue ..	4,505	101,972	24.48	2,532	60,608	23.94
Grey, etc. ..	2,794	57,427	20.55	1,037	24,621	23.74
HAY (TONS)						
Pasture (incl. Lucerne) ..	161,839	320,833	1.98	194,475	430,064	2.21
Oaten	14,804	28,607	1.93	4,583	9,522	2.08
Other	1,000	1,721	1.72	1,533	3,243	2.12

Crops: Area, Production and Yield Per Acre—continued

Crop and Unit of Quantity	Average, Ten Years Ended 1970-71			Year 1971-72		
	Area (Acres)	Production		Area (Acres)	Production	
		Total	Yield Per Acre		Total	Yield Per Acre
ORCHARD TREE FRUIT ('000 BUSHELS)						
Bearing—						
Apples	15,057	7,338	487	12,895	5,873	455
Apricots	372	33	87	270	24	90
Pears	1,341	501	373	951	296	311
Plums and Prunes ..	56	12	214	27	4	158
Other	72	..	..	64	..	..
Non-bearing	3,155	..	..	3,554	..	..
BERRY AND SMALL FRUIT ('000 LBS)						
Bearing—						
Currants (Black and Red)	746	2,528	3,388	588	2,513	4,274
Gooseberries	30	215	7,186	20	120	6,020
Loganberries	129	765	5,956	105	562	5,346
Raspberries	629	3,314	5,269	508	2,891	5,695
Strawberries	70	242	3,461	52	188	3,616
Non-bearing	164	..	..	296	..	..
VEGETABLES FOR SALE FOR HUMAN CONSUMPTION						
Beans, French and Runner '000 lb	916	7,358	8.04	1,787	13,202	7.38
Peas, Green (a)—						
For Processing .. '000 lb	13,444	46,944	} 3.47 {	10,601	38,839	} 3.66
Sold in Pod .. '000 lb	124	136		30	31	
Potatoes tons	10,822	71,683	6.62	8,879	69,258	7.80
Turnips, Swede and White tons	642	4,442	6.92	617	3,956	6.41
Other	1,658	..	..	2,717	..	..
PASTURE SEED (INCLUDING LUCERNE) (CWT)						
Pasture Seed (including Lucerne) (b)	4,661	9,909	1.80	5,092	8,496	1.67
OTHER CROPS ('000 LBS)						
Hops (c)	1,522	2,619	1,721	1,333	2,556	1,917
Mustard	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Oil Poppies	n.p.	n.p.	n.p.	2,001	n.p.	n.p.

(a) Ex-shell weight.

(b) Production includes seed harvested from areas sown to grain crops; this seed is excluded from the average yield figures.

(c) Production is expressed as dry weight.

Summary of Principal Crops

The following tables, which summarise the area of selected principal crops and give details of production for recent years, illustrate: (i) the increasing importance of barley for grain, and french and runner beans for processing; and (ii) the declining importance of potatoes, small fruit and hops.

Selected Principal Crops: Area and Production

Particulars	1961-62	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
AREA (ACRES)							
Barley for Grain	18,728	21,057	24,051	26,214	29,692	31,838	31,075
Oats for Grain	26,953	35,909	35,371	31,434	22,167	23,336	15,893
Wheat for Grain	15,568	12,747	12,018	17,394	14,732	11,067	11,293
Total Hay	157,238	203,181	178,838	210,563	171,803	211,652	200,591
Field Peas	8,101	5,982	5,562	5,606	5,706	6,169	3,569
Pasture Seed	3,818	5,136	2,385	4,496	4,530	5,091	5,092
Hops (a)	1,474	1,556	1,606	1,595	1,472	1,310	1,333
Beans, French and Runner	479	970	1,041	1,666	1,577	1,405	1,787
Peas, Green—							
For Processing	12,823	15,221	14,877	14,014	14,590	7,445	10,601
Sold in Pod	139	83	67	96	117	57	30
Potatoes	11,129	10,278	10,960	11,461	9,367	8,994	8,879
Orchard (Tree) Bearing—							
Apples	15,417	15,235	14,945	14,487	14,343	14,122	12,895
Pears	1,471	1,398	1,220	1,175	1,219	1,107	951
Berry and Small Fruit, Bear-							
ing—							
Currants (Black and Red)	902	695	548	590	577	587	588
Loganberries	162	139	94	125	102	94	105
Raspberries	838	577	452	484	517	561	508
Strawberries	72	67	66	67	65	46	52
PRODUCTION							
Barley for Grain '000 bush	607	772	884	884	1,095	1,312	1,221
Oats for Grain '000 bush	587	948	1,014	583	455	486	389
Wheat for Grain '000 bush	345	385	316	410	353	283	307
Total Hay .. '000 tons	285	437	309	494	362	441	443
Field Peas .. '000 bush	180	152	119	129	175	203	85
Pasture Seed .. cwt	4,757	11,702	5,373	14,604	8,879	10,613	8,496
Hops (b) .. '000 lb	2,837	2,091	3,005	3,488	2,796	2,375	2,556
Beans, French and Runner							
'000 lb	3,172	8,127	8,792	13,769	11,232	11,671	13,202
Peas, Green (c)—							
For Processing .. '000 lb	37,479	56,689	53,926	54,266	66,042	32,794	38,839
Sold in Pod .. '000 lb	161	101	79	135	213	53	31
Potatoes .. '000 tons	72	73	79	72	68	71	69
Apples .. '000 bush	7,844	6,301	7,943	7,138	7,400	7,373	5,873
Pears .. '000 bush	566	404	511	451	496	397	296
Currants (Black and Red)							
'000 lb	2,197	2,715	2,160	2,638	2,063	2,237	2,513
Loganberries .. '000 lb	1,431	681	511	628	446	506	562
Raspberries .. '000 lb	4,816	3,240	2,502	2,629	2,812	2,955	2,891
Strawberries .. '000 lb	275	262	241	203	226	129	188

(a) Includes areas not in full bearing.

(b) Dry weight.

(c) Ex-shell weight.

Principal Crops

The data on acreage and production of crops are compiled, in general, to give totals for each municipality. In subsequent parts of this Chapter dealing with geographical distribution, the information is presented only in statistical divisions; however, the Hobart and Southern Division totals have been combined since the Hobart Division is basically a concept related to a population which is predominantly urban in character. A description of the Tasmanian statistical divisions and sub-divisions appears in Chapter 2.

Cereals for Grain

The next table shows the geographical distribution of cereal grain growing:

Area of Cereals for Grain in Statistical Divisions, 1971-72
(Acres)

Cereals for Grain	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Barley ..	10,889	12,827	2,790	15,617	4,569	..	4,569	31,075
Oats ..	4,194	6,762	4,551	11,313	386	..	386	15,893
Rye ..	23	..	..	..	3	..	3	26
Wheat ..	4,553	3,449	2,935	6,384	356	..	356	11,293
Total ..	19,659	23,038	10,276	33,314	5,314	..	5,314	58,287

(a) Statistical sub-division.

The area under barley as a grain crop has tended to increase in recent years, the 1961-62 acreage being only 18,728. Larger than usual wheat acreages were recorded in 1963-64 (17,562) and 1968-69 (17,394) but the 1970-71 area (11,067 acres) was the lowest for 10 years.

Legumes Mainly for Grain

The geographical distribution of these crops follows:

Area of Legumes Mainly for Grain in Statistical Divisions, 1971-72
(Acres)

Crop	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Beans—								
Navy ..	..	97	..	97	325	..	325	422
Horse ..	12	157	..	157	..	..	..	169
Field Peas—								
Blue ..	..	2,425	47	2,472	58	..	58	2,532
Grey, etc. ..	82	764	9	773	182	..	182	1,037

(a) Statistical sub-division.

Hay and Green Feed

The following table shows the geographical distribution of hay and green feed crops:

**Area of all Hay and Crops for Green Feed or Silage in Statistical Divisions, 1971-72
(Acres)**

Crop	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Hay—								
Pasture ..	27,060	57,529	30,813	88,342	78,975	98	79,073	194,475
Oaten ..	1,073	1,294	651	1,945	1,565	..	1,565	4,583
Other ..	371	419	163	582	580	..	580	1,533
Total ..	28,504	59,242	31,627	90,869	81,120	98	81,218	200,591
Crops for Green Feed or Silage (b) ..	12,535	14,242	15,428	29,670	12,437	8	12,445	54,650

(a) Statistical sub-division.

(b) Includes vegetables for stock feed; excludes pasture harvested for green feed or silage.

The North Western Sub-division, with the largest area devoted to sown pastures, produces approximately 40 per cent of the State's hay. Its predominance in acreage under hay and green feed crops can be related to the fact that it carries about 40 per cent of the State's cattle and is the principal dairying area.

The principal green feed crop is oats (more than half of total green feed acreage); other green feed crops include soft turnips, rape, chou moellier, barley, millet, ryecorn and wheat.

Orchard Tree Fruit and Berry and Small Fruit

The geographical distribution of orchards and berry and small fruit areas is shown below:

**Area of Orchard Tree and Berry and Small Fruit in Statistical Divisions, 1971-72
(Acres)**

Kind	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Orchard Tree Fruit ..	13,667	3,145	42	3,187	907	..	907	17,761
Berry and Small Fruit ..	1,536	17	7	24	8	..	8	1,569

(a) Statistical sub-division.

Orcharding is heavily concentrated in and around the Huon Valley (Southern Statistical Division); the other main area is in the Tamar Valley (Northern Division). Berry and small fruit growing is almost entirely confined to the Derwent and Huon Valleys.

In the period from 1948-49 State production of berry and small fruit has dropped by about two-thirds. In spite of this Tasmania is still the principal producer of raspberries and black and red currants. The State also makes an important contribution to other small fruit production.

Principal Small Fruits: Area and Production

Year	Currants (Black and Red)		Loganberries		Raspberries		Strawberries	
	Bearing Area	Pro-duction	Bearing Area	Pro-duction	Bearing Area	Pro-duction	Bearing Area	Pro-duction
	acres	'000 lb	acres	'000 lb	acres	'000 lb	acres	'000 lb
1948-49 (a) ..	2,006	6,030	213	837	2,086	7,603	250	871
1967-68 (b) ..	548	2,160	94	511	452	2,502	66	241
1968-69 ..	590	2,638	125	628	484	2,629	67	203
1969-70 ..	577	2,063	102	446	517	2,812	65	226
1970-71 ..	587	2,237	94	506	561	2,955	46	129
1971-72 ..	588	2,513	105	562	508	2,891	52	188

(a) Representative year from period when small fruit areas were at record level.

(b) Part of 1967-68 decline due to bushfires in Southern Tasmania.

The gross value of the apple crop continues to represent about one-third of the total gross value of agriculture; however, the actual value of the apple crop has declined considerably in recent years. The next table gives recent details of area, production and average yield and illustrates the effect of economic problems confronting the industry.

Apples: Area and Production

Season	Area		Number of Trees		Production		
	Bearing	Non-Bearing	Bearing	Non-Bearing	Total	Yield	
						Per Acre	Per Bearing Tree
	acres	acres	'000	'000	'000 bush	bush	bush
1967-68 ..	14,945	3,433	2,228	512	7,943	531	3.56
1968-69 ..	14,487	3,672	2,191	555	7,138	493	3.26
1969-70 ..	14,343	3,503	2,150	525	7,400	516	3.44
1970-71 ..	14,122	3,522	2,124	530	7,373	522	3.47
1971-72 ..	12,895	3,355	2,015	524	5,873	455	2.91

After World War I, apple acreage was 26,000 acres but the decline in area since then has been more than offset by greatly increased average yield per acre. Although the area planted with apples in New South Wales and Victoria is greater than in Tasmania the much higher average yields in Tasmania (455 bushels per acre in 1971-72) have caused production of apples to exceed that of any other State. The higher yields which are more than twice those in some States can be attributed to several factors including a much greater density of trees per acre and the greater use of irrigation.

In the 1967-68 season, devaluation of sterling threatened to reduce the return to overseas exporters and the Commonwealth Government outlined a scheme in May 1968, the main provision being 50 cents devaluation compensation for each bushel of apples exported and 53 cents for each bushel of pears exported. The compensation was continued for the 1968-69 season, but at the reduced rate of 40 cents per bushel for apples and 50 cents for pears. In 1969-70 compensation was paid at the same rate as in the 1967-68 season. As a result of the December 1972 revaluation of the Australian dollar, compensation of 30 cents per bushel (up to a maximum of 5,000 bushels per grower) was offered to overseas exporters of apples and pears.

Commencing with the 1970-71 export season the Commonwealth Government's *Apple and Pear Stabilization Act* came into effect. The Act's provisions are designed to reduce the financial risks involved in the overseas export of fruit. Amounts paid under the scheme were: 1970-71, \$1,664,000; 1971-72, \$1,926,000.

A wide variety of apples is produced in Tasmania but many only in small quantities. Of the total production of 5,873,000 bushels in 1971-72, four varieties accounted for 66 per cent (democrat, 18 per cent; granny smith, 16 per cent; jonathan, 16 per cent and sturmer pippin, 16 per cent).

Concurrent with increasing economic problems facing the apple industry the number of apple trees planted has decreased markedly. In 1966 total tree plantings were 108,000 comprising: (i) replacement plantings in existing orchards for trees removed, 38,000; (ii) trees planted in new orchard areas, 70,000. In 1972 plantings were only 39,000 trees (28,000 replacement plantings and 11,000 trees in new orchard areas). The next table shows tree plantings during 1971 and 1972 in new orchard areas and replacement plantings in existing orchard areas.

Apple and Pear Trees Planted According to Variety
(Number)

Variety	1971			1972		
	In Existing Orchards (a)	In New Orchards	Total	In Existing Orchards (a)	In New Orchards	Total
APPLES						
Jonathan	1,918	265	2,183	} 220	..	220
Sturmer Pippin	1,053	429	1,482			
Democrat	1,851	928	2,779			
Granny Smith	9,307	5,309	14,616			
Cleopatra	307	..	307	603	700	4,569
Delicious—Golden	3,943	3,700	7,643	2,146	680	2,826
Other	20,243	15,614	35,857	15,967	7,714	23,681
Other	4,341	1,955	6,296	2,560	2,128	4,688
Total	42,963	28,200	71,163	27,764	11,389	39,153
PEARS						
Packhams Triumph	824	633	1,457	} 549	150	699
Winter Cole	146	..	146			
Beurre Bosc	25	640	665			
Other	55	..	55			
Total	1,050	1,273	2,323	817	150	967

(a) Trees planted as replacements for trees removed.

Vegetables for Sale for Human Consumption

As previous acreage and production tables indicated, there has been a decline in potato growing; the next table traces the history of this crop since 1860:

Potatoes: Area Under Crop and Total Production, Selected Years

Year	Area	Production		Year	Area	Production	
		Total	Yield Per Acre			Total	Yield Per Acre
1860-61 ..	acres 7,621	tons 33,589	tons 4.41	1930-31 ..	acres 37,229	tons 95,289	tons 2.56
1870-71 ..	9,823	36,028	3.41	1940-41 ..	37,364	114,014	3.05
1880-81 ..	10,421	32,548	3.12	1944-45 (a) ..	81,092	345,232	4.26
1890-91 ..	20,133	73,158	3.63	1950-51 ..	31,581	124,000	3.93
1900-01 ..	23,068	93,862	4.07	1960-61 ..	10,875	39,050	3.59
1910-11 ..	26,230	70,090	2.67	1970-71 ..	8,994	71,444	7.94
1920-21 ..	32,000	88,679	2.77	1971-72 ..	8,879	69,258	7.80

(a) Peak acreage and production year.

Potato growing was for many years a major activity in the North Western Sub-division and even in 1971-72, 85 per cent of the acreage and 89 per cent of the production of the State's potato crop was located in that area. The size of the Tasmanian potato crop has always been influenced by the demand from other States, in particular, New South Wales. In 1951-52, over 100,000 tons were exported; annual exports from 1964-65 to 1967-68 ranged between 26,000 and 35,000 tons but in 1971-72 they were only 4,700 tons. The considerable increased yield per acre in recent years has been due mainly to the greater use of irrigation and artificial fertilisers. In 1971-72 63 per cent of the State potato crop was irrigated compared with only 12 per cent 10 years earlier. (See 'Technical Aspects of Rural Industry' later in this Chapter.)

The decline in the export crop has been largely offset by increased opportunities for disposing of potatoes and other vegetable crops to dehydrating, canning and deep freezing plants developed on the north-west coast and in the Scottsdale area since World War II. The principal vegetable crop currently grown for processing is green peas; in 1971-72 the area of peas planted for processing was 10,600 acres. A demand by processing establishments also exists for other vegetables. In 1971-72 1,787 acres of french and runner beans were grown compared with only 479 acres 10 years earlier. The production from all but 30 acres of the 1971-72 bean crop was for processing factories; planned industrial development during the next few years should result in an increased demand for potatoes for processing.

The concentration of vegetable growing in certain areas of the State is illustrated in the following table:

Vegetables for Sale for Human Consumption (a)
Area Under Selected Crops in Statistical Divisions, 1971-72
(Acres)

Crop	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (b)	North Eastern (b)	Total	North Western (b)	Western (b)	Total	
Beans, French and Runner	4	12	24	36	1,749	..	1,749	1,787
Peas, Green ..	24	3,024	707	3,731	6,877	..	6,877	10,631
Potatoes ..	732	128	489	617	7,527	5	7,532	8,879
Turnips, Swede and White	162	17	92	109	342	4	346	617
Other Vegetables	536	194	365	559	1,624	..	1,624	2,717
Total ..	1,457	3,375	1,677	5,051	18,118	9	18,126	24,630

(a) Includes vegetables for processing.

(b) Statistical sub-division.

Pasture Seed

The geographical distribution (in acres) of areas yielding pasture seed in 1971-72 was as follows: Northern, 3,819; Mersey-Lyell, 593; Southern, 587; Hobart, 94; total, 5,092. The area of pasture seed fluctuates widely depending on farming conditions; in 1964-65, 9,013 acres yielded seed while in 1967-68, only 2,385 acres were harvested.

Hops

One of Tasmania's principal industrial crops is hops, grown mainly in the Derwent Valley in the municipalities of New Norfolk and Hamilton. In 1971-72 the State's hop acreage was 1,333.

Hop production reached a record level of 3,488,000 lbs in 1968-69 and, for the first time, some growers experienced difficulty in disposing of their crops. As a result of these difficulties, some farmers in 1970 and 1971 reduced hop acreage, a number 'grubbed out' their entire area of hops, while many others failed to completely harvest their crops. This led to a fall in production to 2,375,000 lbs for the 1971 season. In 1972 the number of growers again declined, however, there was some recovery in production which increased to 2,556,000 lbs in the 1972 season.

The most popular variety of hops is the 'pride of ringwood' which accounted for 82 per cent of the area of hops in 1972, compared with 54 per cent in the previous year.

Tasmania has for many years been the principal Australian grower of hops, producing about 70 per cent of the crop. However, increased production in Victoria in recent years has further aggravated marketing problems for Tasmanian growers and in 1971 Tasmania's contribution had fallen to 63 per cent.

The next table shows details of area, production and value over a five-year period:

Hops: Area, Production and Value

Season	Number of Growers	Total Area	Production		
			Total (a)	Yield Per Acre (a)	Value
		acres	'000 lb	lb	\$'000
1967-68	111	1,606	3,005	1,871	2,303
1968-69	108	1,595	3,488	2,187	2,673
1969-70	102	1,472	2,796	1,899	2,143
1970-71	81	1,310	2,375	1,813	1,820
1971-72	74	1,333	2,556	1,917	2,185

(a) Dry weight.

Oil Poppies

Oil poppies are a relatively new cash crop in Tasmania. Initially they were grown on the mid north-west coast, but more recently oil poppies have also been grown in the south and other parts of the State.

Oil poppy 'straw' (the heads of the flower) is processed at Latrobe; oil extracted is used in the manufacture of pharmaceuticals.

'All Other Crops'

In the table 'Area of Principal Crops' the item 'All Other Crops' (1,434 acres in 1971-72) includes lavender, flower seeds, cut flowers, a variety of crops grown for seed, and green manure crops.

LIVESTOCK

Introduction

This subject is dealt with in two parts: (i) Numbers of Livestock on Rural Holdings; and (ii) Livestock Products.

The first part needs no comment but the second part (Livestock Products) requires explanation. In relation to the various types of livestock, the following products are included:

Cattle—meat, milk, butter, cheese. *Sheep*—meat, wool.

Pigs—meat. *Poultry*—meat, eggs.

Butter, meat and cheese, although regarded as manufacturing industry products, are included in the section 'Livestock Products', which follows later in the Chapter, because the pattern and scale of livestock farming is closely linked to the processing of these products.

Number of Livestock on Rural Holdings

The following summary table shows the numbers of livestock on rural holdings since 1860:

Livestock on Rural Holdings: Selected Years

Year	Horses	Cattle	Sheep	Pigs
	no.	no.	'000	no.
1860 (a)	21,034	83,366	1,701	31,290
1870	22,679	101,459	1,350	49,432
1880	25,267	127,187	1,794	48,029
1890	31,165	162,440	1,619	81,716
1900	31,607	165,516	1,684	68,291
1910	41,388	201,854	1,788	63,715
1919-20	39,452	214,442	1,781	35,530
1929-30 (b)	34,336	214,643	2,091	52,899
1939-40 (b)	29,605	252,484	2,677	44,941
1949-50 (c)	21,197	274,740	2,170	35,841
1959-60	10,512	375,342	3,494	67,118
1969-70	6,478	646,439	4,560	111,275
1971-72	n.a.	829,319	4,237	103,934
Tasmanian Numbers as Proportion of Australian Total (1971-72) ..	% n.a.	% 3.0	% 2.6	% 3.3

(a) At varying dates to 1919-20.

(b) At 31 December.

(c) At 31 March from 1949-50.

Cattle

Classification

The traditional way of classifying cattle has been to call them either 'dairy' or 'beef' cattle but this has possibly been confusing since the terms may refer either to *purpose* or *breed*. In the period 1942-43 to 1962-63, the annual farm census required this dissection but the terms were not defined. As from 1963-64 the cattle questions have been as follows: (i) bulls classified by *breed*; (ii) 'house cows' specified separately; and (iii) all other cattle classified according to *purpose* i.e. milk production or meat production. The results of the 1971-72 farm census are given in the following table which closely follows the lay-out of the collection form and provides an analysis in which it is possible to isolate the number of cows and heifers directly associated with dairying.

Classification of Cattle on Rural Holdings at 31 March

Description				1971	1972
Bulls used or intended For Service	Dairy Breed Bulls (1 year and over)			2,812	2,724
	Beef Breed Bulls (1 year and over)			9,376	11,045
	Bull Calves (under 1 year) intended for service—				
	Dairy Breed Bull Calves			1,466	1,229
	Beef Breed Bull Calves			3,841	4,539
Cows and Heifers used or intended for production (for sale) of Milk and Cream	Cows—In Milk at 31 March			} 153,402 {	128,997
	Dry at 31 March				25,828
	Heifers (1 year and over)				36,967
	Heifer Calves (under one year)				36,093
House Cows (in milk and dry) and Heifers (one year and over) being kept primarily for own milk supply				4,171	3,861
Cattle and Calves (not included above) mainly for Meat Production	Cows and Heifers (one year and over)			223,960	263,132
	Calves (under one year) including Vealers			187,009	219,842
	Other (one year and over) i.e. Steers, Bullocks, etc.			70,984	95,062
Total Cattle and Calves for all Purposes				733,410	829,319

The total of 'Cows and Heifers used or intended for production (for sale) of Milk and Cream' in the previous table (227,885) can be associated directly with the dairying industry. Similarly the total of 'Cattle and Calves, mainly for Meat production' (578,036) can be associated directly with the beef cattle industry. The previous change in classification makes it impossible to compare, in full detail, the description of cattle in 1964-65 and subsequent years with descriptions reported in previous years but the following table is compiled to show broad groups regarded as generally comparable:

Description of Cattle on Rural Holdings at 31 March

Year	Number of Holdings with Cattle	Bulls (1 Year and Over)	Cows and Heifers (1 Year and Over)	Calves (Under 1 Year)	Other	Total
1950	9,759	6,186	158,424	60,601	49,529	274,740
1955	9,668	7,002	194,016	78,252	40,147	319,417
1960	9,031	7,237	229,162	100,849	38,094	375,342
1965	8,384	(a)8,311	283,955	119,455	39,750	451,471
1969	8,545	10,049	351,685	166,604	57,380	585,718
1970	8,405	10,812	378,836	200,588	56,203	646,439
1971	8,384	12,188	420,738	229,500	70,984	733,410
1972	8,363	13,769	458,785	261,703	95,062	829,319

(a) The specification of 'Bull Calves (under 1 year)' from 1963-64 may have affected the comparability of the series.

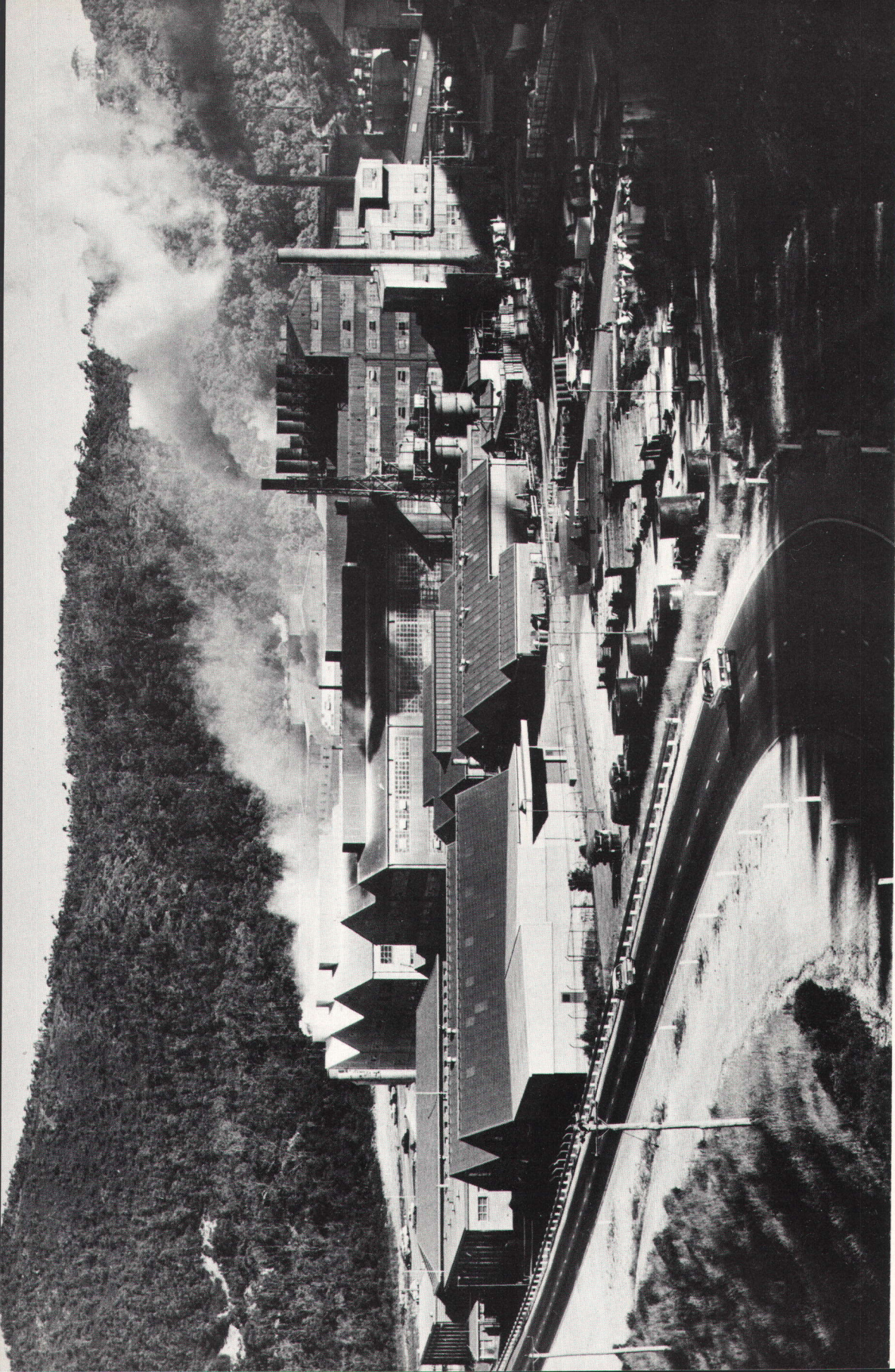
The distribution of holdings with cattle is shown below:

Distribution of Cattle in Statistical Divisions, 31 March 1972

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Holdings with Cattle ..	2,489	1,935	834	2,769	3,091	14	3,105	8,363
Total Cattle (All Descriptions)	158,685	196,435	163,214	359,649	309,730	1,255	310,985	829,319
Cows in Milk and Dry (b)	10,981	33,945	19,906	53,851	89,984	9	89,993	154,825
Heifers (1 Year and Over) (b)	3,572	8,469	4,408	12,877	20,515	3	20,518	36,967
Heifer Calves (Under 1 Year) (b)	3,148	8,014	4,635	12,649	20,294	2	20,296	36,093
Total (b) ..	17,701	50,428	28,949	79,377	130,793	14	130,807	227,885
Bulls (1 Year & Over)—								
Dairy Breeds	257	580	354	934	1,531	2	1,533	2,724
Beef Breeds	2,787	2,767	2,389	5,156	3,082	20	3,102	11,045

(a) Statistical sub-division.

(b) 'Cows and Heifers used or intended for production (for sale) of Milk and Cream'. The total (227,885) can be associated directly with the dairying industry.



Tioxide Australia Pty Ltd, Heybridge, north-west coast

[Don Stephens]



Historic Cascade Brewery, Hobart

[B. R. Morgan]

Breeds of Cattle

The main breeds of cattle in Tasmania for milk production are jersey, friesland and ayrshire with small numbers of milking shorthorn and guernsey, while breeds used for the production of beef are hereford, aberdeen angus, shorthorn and devon. In recent years, new cattle lines such as the brahmans, murray greys and charolais have been introduced by farmers wishing to utilise the advantages of cross-breeding.

Sheep

The table below shows the trend in sheep numbers on rural holdings since 1949:

Sheep on Rural Holdings at 31 March
(^{'000})

Year	Sheep	Year	Sheep	Year	Sheep	Year	Sheep
1949	2,160	1955 ..	2,595	1961 ..	3,439	1967 ..	4,321
1950	2,170	1956 ..	2,673	1962 ..	3,532	1968 ..	4,428
1951	2,182	1957 ..	2,943	1963 ..	3,570	1969 ..	4,395
1952	2,338	1958 ..	3,298	1964 ..	3,600	1970 ..	4,560
1953	2,422	1959 ..	3,536	1965 ..	3,793	1971 ..	4,517
1954	2,465	1960 ..	3,494	1966 ..	4,127	1972 ..	4,237

The next table shows the geographical distribution and various descriptions of sheep, and also details of the lambing season:

Description of Sheep at 31 March 1972 and Lambing, 1971 Season, in Statistical Divisions

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Holdings with Sheep ..	1,518	1,260	538	1,798	941	..	941	4,257
Sheep—								
Rams (1 Year and Over)	18,271	14,673	13,265	27,938	4,099	..	4,099	50,308
Breeding Ewes	764,247	482,025	445,447	927,472	149,063	..	149,063	1,840,782
Other Ewes (1 Year and Over) ..	121,376	67,907	61,311	129,218	14,799	..	14,799	265,393
Wethers (1 Year and Over) ..	529,483	165,466	233,763	399,229	23,198	..	23,198	951,910
Lambs and Hoggets (Under 1 Year) ..	492,447	263,706	279,145	542,851	92,990	..	92,990	1,128,288
Total ..	1,925,824	993,777	1,032,931	2,026,708	284,149	..	284,149	4,236,681
Lambing, 1971 Season—								
Ewes Mated	741,923	485,606	426,172	911,778	151,456	..	151,456	1,805,157
Lambs Marked	665,481	427,340	377,394	804,734	146,687	..	146,687	1,616,902
Number ..								
Marking Ratio (b)	89.7	88.0	88.6	88.3	96.9	..	96.9	89.6

(a) Statistical sub-division.

(b) Lambs marked as percentage of ewes mated; lamb mortality is one of the factors affecting marking ratios.

The following table summarises the descriptions of sheep on a State basis and also gives details of lambing:

Description of Sheep at 31 March and Details of Lambing: Summary

Particulars	1962	1967	1968	1969	1970	1971	1972
Holdings with Sheep ..	5,675	5,224	5,294	5,096	4,815	4,611	4,257
Sheep ('000)—							
Rams (1 Year and Over)	43	47	49	50	50	51	50
Breeding Ewes	1,548	1,997	1,954	2,023	2,026	1,994	1,841
Other Ewes (1 Year and Over)	208	164	203	174	195	226	265
Wethers (1 Year and Over)	848	1,022	1,072	1,041	1,064	1,075	952
Lambs and Hoggets (Under 1 Year) ..	885	1,090	1,150	1,105	1,225	1,171	1,128
Total	3,532	4,321	4,428	4,395	4,560	4,517	4,237
Lambing (a)—							
Ewes Mated .. '000	1,440	1,688	1,779	1,736	1,831	1,889	1,805
Lambs Marked—							
Number .. '000	1,368	1,574	1,522	1,561	1,715	1,705	1,617
Marking Ratio (b) %	95.0	93.3	85.6	89.9	93.6	90.3	89.6

(a) In the season preceding the year named.

(b) Lambs marked as percentage of ewes mated.

Breeds of Sheep

The merino is the mainstay of the Australian wool industry and accounts for over 75 per cent of the Australian sheep population. However, in Tasmania the predominant sheep breeds are polwarth and corriedale; both were originally developed from merino cross-breeds. A new sheep breed, the 'cormo', has been developed in Tasmania to suit local conditions and to provide a highly fertile breed having a high yield of fine wool and good body conformation.

Over the past 10 years, the breeds of sheep reported by growers have shown a trend in favour of polwarths. Corriedale numbers, after showing a small but consistent increase for some years, are now exhibiting an opposite trend. The following table shows the percentage of the main breeds of sheep (including rams):

Proportion of Breeds of Sheep at 31 March
(Per Cent)

Breed	1961	1966	1967	1968	1969	1970	1971
Polwarth	31.2	39.3	39.9	40.5	41.7	42.5	43.6
Corriedale	14.0	18.6	19.5	18.0	17.3	15.4	14.4
Merino	10.2	8.7	8.0	7.1	7.7	7.9	8.9
Romney Marsh	2.6	2.1	2.2	2.0	1.9	1.2	1.3
Other Breeds (a)	4.9	3.4	3.0	3.0	3.3	3.9	4.9
Comebacks	11.4	10.0	10.5	10.7	11.1	12.6	11.8
Cross-breeds	25.7	17.9	17.0	18.7	17.0	16.4	15.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Recognised breeds of sheep which individually, in 1971, accounted for about one per cent or less of all sheep; includes cheviot, dorset horn, border leicester, English leicester, ryeland, southdown, suffolk, lincoln, poll dorset, shropshire and cormo.

The majority of all breeds of sheep are run on improved pastures. However, particularly in the midlands, use is made of considerable areas of unimproved 'run' country for polwarths, comebacks and merinos. The Central Plateau also provides summer grazing, particularly for wethers.

Pigs

The geographical distribution of pigs, by statistical division, is shown in the next table:

Distribution of Pigs in Statistical Divisions at 31 March 1972

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Holdings with Pigs ..	372	544	270	814	699	3	702	1,888
Pig Numbers—								
Boars ..	229	494	257	751	688	2	690	1,670
Breeding Sows	1,920	4,250	2,152	6,402	6,119	21	6,140	14,462
Other (b) ..	9,572	26,858	13,731	40,589	37,558	83	37,641	87,802
Total Pigs	11,721	31,602	16,140	47,742	44,365	106	44,471	103,934

(a) Statistical sub-division.

(b) Includes baconers and porkers, backfatters, stores, weaners, suckers and slips.

The concentration of pigs in the North Western Sub-division has been related to the fact that this is the main dairying area and that pig-raising has traditionally been associated with dairying. This association still exists but pigs are usually no longer a sideline on dairy farms. Since the advent of bulk milk collection, the dairyman has had an alternative market for skim milk; thus, while a steady increase in the pig population has taken place, a decline in the number of pig producers has occurred. On those dairy farms still producing pig meat, pig numbers have increased and in many cases the income from pigs often equals that from cows. A change to the intensive system of pig production, in which all pigs are permanently housed, is occurring.

Pig Population

The pig population at 31 March each year is not, in itself, a very significant figure. It is possible for a sow to produce two litters within the one year and the offspring to number more than 10 in each litter. It follows, therefore, that the real measure of activity in pig-raising is not so much the size of the pig herd at a particular point in time but rather the number of pigs slaughtered and the dressed carcass weight of the meat so produced; such information is given in the 'Livestock Products' section of this Chapter.

In the previous table, the most significant item is the number of breeding sows. A sow can be mated at nine or ten months and the gestation period is a mere four months. Piglets are weaned at four to six weeks—this early weaning calls for more skilled management but has the advantages of avoiding heavy weight loss by the sow and reducing the period between litters.

The following table shows, in summary form, details of pig raising:

Pigs on Rural Holdings at 31 March: Summary

Year	Holdings with Pigs	Boars	Breeding Sows	Other (a)	Total Pigs
1955	4,235	1,608	9,065	47,709	58,382
1960	3,681	2,075	10,730	54,313	67,118
1965	3,315	2,327	14,578	75,116	92,021
1970	2,302	1,978	16,629	92,668	111,275
1971	2,134	1,839	15,841	94,956	112,636
1972	1,888	1,670	14,462	87,802	103,934

(a) Includes baconers and porkers, backfatters, stores, weaners, suckers and slips.

LIVESTOCK PRODUCTS

Quantity and Value of Livestock Products

The statistics in the following section refer, in the main, to quantities of livestock products. The associated values will be found under 'Value of Production' in Chapter 8.

Wool

The metric system was introduced to the Australian wool industry as from the 1971-72 wool selling season. Commencing in July 1971, all wool has been sold in kilograms and in this publication, all wool statistics (production, sales, exports, etc.) are recorded in metric units. (It should be noted that one tonne = 1,000 kilograms.)

In a report in 1836, the Colonial Secretary, John Montagu, described the early export trade in wool: 'It appears that the quantity of Wool imported into England from N.S.W. and Van Diemen's Land in 1810 was 167 lbs; in 1820, it amounted to 99,415 lbs; in 1825, to 323,995 lbs. From 1827, the returns for the two Colonies are separated.'

Prices in 1824 varied from five cents to 10 cents per kilogram but, by 1836, they had increased to range from 30 to 50 cents. The progress of wool production in the remainder of the 19th century can be appreciated from the following table (compiled from export figures, since production details were not collected for the whole period):

Exports of Wool (a) (Overseas and Interstate): Historical Summary
(Tonnes)

Year	Quantity	Year	Quantity	Year	Quantity
1835	1,102	1860	2,058	1885	2,619
1840	1,650	1865	2,233	1890	4,075
1845	1,661	1870	1,881	1895	3,276
1850	2,669	1875	2,812	1900	3,064
1855	2,657	1880	4,094	1905	4,339

(a) The figures relate basically to greasy wool but a small proportion of washed wool is included in the later years.

Unfortunately the above series cannot be carried through the period 1910-1922 due to the lack of interstate trade figures, or through the period 1922-1951 because 'pure' greasy wool export figures (i.e. separated from scoured wools and tops and noils) are not available. Export details for recent years are as follows:

Exports of Wool, Greasy (Overseas and Interstate)
(Tonnes)

Year	Quantity	Year	Quantity	Year	Quantity
1957-58	10,732	1962-63	11,919	1967-68	13,995
1958-59	11,416	1963-64	11,379	1968-69	15,799
1959-60	12,690	1964-65	13,757	1969-70	16,513
1960-61	11,069	1965-66	15,443	1970-71	17,146
1961-62	12,342	1966-67	16,240	1971-72	20,413

It should be noted, however, that not all Tasmanian wool is exported, some being used, after scouring, etc., for manufacturing purposes within the State; any locally processed wool exported would not be classified under greasy wool.

Wool Production

For statistical purposes, the total amount of wool produced in the State in any year consists of not only the 'clip' (shorn wool) but also of the wool on skins, irrespective of whether it is actually removed by local fellmongers or exported on skins. Production figures for the latest 10-year period are:

Wool Production (a) Summary
(Tonnes)

Year	Shorn Wool (including Crutchings)	Fell- mongered and Dead Wool, and Wool Exported on Skins	Total	Year	Shorn Wool (including Crutchings)	Fell- mongered and Dead Wool, and Wool Exported on Skins	Total
1962-63 ..	13,752	1,925	15,677	1967-68 ..	15,286	2,090	17,376
1963-64 ..	13,425	2,000	15,425	1968-69 ..	18,955	2,344	21,299
1964-65 ..	16,156	1,838	17,994	1969-70 ..	19,409	2,452	21,861
1965-66 ..	16,759	2,227	18,986	1970-71 ..	19,165	2,506	21,670
1966-67 ..	17,548	2,026	19,574	1971-72 ..	18,573	2,490	21,063

(a) Fellmongered wool has been converted to greasy wool equivalent weight.

In previous tables, dealing with exports, a gap exists between 1905 and 1950-51 but production statistics are available as follows:

Total Wool Production (a): Historical Summary
(Tonnes)

Year	Production	Year	Production	Year	Production
1905	5,331	1929-30	6,804	1954-55	10,794
1910	6,050	1934-35	6,366	1959-60	15,241
1914-15	5,465	1939-40	8,316	1964-65	17,994
1919-20	5,928	1944-45	7,404	1969-70	21,861
1924-25	5,662	1949-50	7,692	1971-72	21,063

(a) Total wool production, including shorn, dead and fellmongered wool and wool exported on skins; fellmongered converted to greasy wool equivalent weight.

Greasy Wool Equivalent

Fellmongered wool included in previous total production figures has been attributed a weight as though it were *greasy* wool, although the original information is received in terms of the weight of *soured* wool recovered by fellmongering. The method of conversion is as follows: as 100 kg of *greasy* yields 60 kg of *clean*, and 100 kg of *soured* (fellmongered) yields 80 kg of *clean*, it follows that 100 kg of *soured* (fellmongered) is equivalent to 133 kg of *greasy*. The factors in the example are only approximations of those which are obtained from woollscourers (*greasy/clean* relativity) and fellmongers (*soured/clean* relativity). Conversion of such wool to a greasy wool equivalent is necessary to put all the components of total production on a common basis.

Shorn Wool

The principal months for shearing in Tasmania are October, November and December, but during the last two or three years an increasing number of farmers have been shearing outside the traditional spring period. Such practices not only facilitate flock and property management but also provide more continuous employment for shearers and shed hands. The following table gives shearing details for recent years:

Primary Industry—Rural
Shearing and Shorn Wool Obtained

Year	Numbers Shorn			Shorn Wool Obtained			Average Yield		
	Sheep	Lambs	Total	From Sheep (a)	From Lambs	Total	From Sheep (a)	From Lambs	Total
	'000	'000	'000	tonnes	tonnes	tonnes	kg	kg	kg
1961-62	3,021	762	3,783	12,938	814	13,752	4.28	1.07	3.64
1967-68	3,673	899	4,572	14,355	931	15,286	3.91	1.03	3.34
1968-69	3,703	928	4,632	17,834	1,121	18,955	4.82	1.21	4.09
1969-70	3,753	1,039	4,792	18,210	1,200	19,409	4.85	1.15	4.05
1970-71	3,864	942	4,806	18,045	1,120	19,165	4.67	1.19	3.99
1971-72	3,711	895	4,607	17,441	1,132	18,573	4.69	1.26	4.03

(a) Includes crutchings from sheep.

The next table shows the geographical distribution of shorn wool production:

Shearing and Shorn Wool Obtained (a) in Statistical Divisions, 1971-72

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (b)	North Eastern (b)	Total	North Western (b)	Western (b)	Total	

NUMBER SHORN ('000)

Sheep	1,720	872	911	1,783	207	..	207	3,711
Lambs	349	233	245	478	69	..	69	895

SHORN WOOL OBTAINED (TONNES)

From—Sheep	8,135	3,928	4,437	8,363	941	..	941	17,441
Lambs	410	293	317	610	112	..	112	1,132
Total ..	8,545	4,221	4,755	8,974	1,053	..	1,053	18,573

AVERAGE YIELD (c) (kg)

Sheep	4.73	4.50	4.87	4.69	4.55	..	4.55	4.69
Lambs	1.17	1.26	1.29	1.28	1.62	..	1.62	1.26

(a) Includes crutchings from sheep.

(b) Statistical sub-division.

(c) Per sheep or lamb shorn.

Wool Auctions

The bulk of Tasmanian shorn wool is marketed in Hobart and Launceston at auctions organised by the wool-selling brokers. Prior to 1969-70 three auction sales were held per year i.e. November, February and May. Approximately one-third of the season's clip was auctioned at the first sale, in excess of 50 per cent at the February sale and the remainder in May.

As from 1969-70 a four-sales season was introduced with sales in October, December, February and June. This move had the effect of creating a more equitable distribution of sales over the selling season although the February sale still remains the most important, accounting for 31 per cent of the 1971-72 sales compared with 47 per cent in 1968-69.

In addition to wool sold at auctions, some wool is bought direct from growers by dealers and by local manufacturers of woollen goods. A small proportion of the State's wool is marketed at Victorian auctions; growers on King Island and Flinders Island tend to use this outlet because of sea transport factors.

The following table shows the average price of shorn greasy wool sold at Tasmanian auctions in selected years since World War II and also the value of all wool produced. The record price (330.80 cents per kg) can be associated with the Korean War and strategic stockpiling but it is significant that the 1970-71 price (74.01 cents) is the lowest recorded since 1946-47. At the 1971-72 wool sales prices rose to 85.96 cents per kg but this was partly due to 'support-buying' by the Wool Commission; however, the 1972-73 sales witnessed an upsurge in demand from overseas buyers and wool prices reached their highest levels (228.90 cents) since the 1950-51 peak.

Tasmanian Average Auction Price and Total Value of Wool Produced

Year	Average Auction Price per kg of Shorn Greasy Wool	Total Value of Wool Produced (a)	Year	Average Auction Price per kg of Shorn Greasy Wool	Total Value of Wool Produced (a)
	cents	\$'000		cents	\$'000
1950-51	330.80	24,226	1964-65	108.80	19,050
1952-53	148.64	12,758	1965-66	123.90	22,405
1954-55	140.54	14,464	1966-67	112.10	20,983
1956-57	158.34	19,948	1967-68	96.39	15,609
1958-59	96.98	13,688	1968-69	105.60	21,180
1960-61	106.22	14,458	1969-70	28.92	18,081
1961-62	107.28	15,752	1970-71	74.01	14,983
1962-63	121.52	17,772	1971-72	85.96	(b)18,001
1963-64	148.59	21,352	1972-73	228.90	

(a) Includes value of shorn wool, fellmongered and dead wool and estimated value of wool exported on skins. Excludes profits of \$3,201,510 arising from the War-time Wool Disposals Plan and distributed to growers in the period 1949-50 to 1954-55.

(b) Includes Government wool deficiency payments of \$1,258,000.

The preceding price series refers only to shorn greasy wool sold at auction. In arriving at the value series for all wool produced, account is taken not only of wool sold at auction but also of direct growers' sales to dealers, manufacturers and fellmongers plus estimated value of wool exported on skins.

Classification of Greasy Wool Sold at Auction

The following information is compiled by the Wool Statistical Service of the Australian Wool Board on the basis of catalogues of auction sales. 'Quality' (64s, 60s, 58s, etc.) is a measure of the fineness of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards in length, which can be spun from one pound of combed wool. For instance, wool of 64s quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from one pound of tops (combed wool) of that particular wool.

The next table shows the proportions of each quality of wool sold at auction for recent years:

Classification of Greasy Wool Sold at Tasmanian Auctions According to Quality
(Source: Australian Wool Board)

Predominating Quality	Proportion of Each Quality (Per Cent)					
	1960-61	1966-67	1967-68	1968-69	1969-70	1970-71
70s and Finer	5.6	4.5	5.2	4.9	4.8	4.4
64/70s	2.8	2.4	2.1	2.1	1.6	1.4
64s	4.3	3.1	3.9	2.9	2.6	2.4
64/60s	0.7	0.6	0.7	0.6	0.3	1.0
60/64s	8.7	6.6	9.5	7.2	6.0	6.6
60s and 60/58s	18.7	15.3	17.6	16.3	15.9	15.2
Total 60s and Finer	40.8	32.5	39.0	34.0	31.2	31.0
58s	24.3	31.7	27.4	30.4	31.9	33.9
56s	19.3	20.4	18.2	19.9	18.4	17.6
50s	9.5	9.3	8.3	9.8	11.2	10.4
Below 50s	3.8	3.9	3.6	4.1	5.2	5.0
Oddments	2.3	2.2	3.5	1.8	2.1	2.1
Total All Wool ..	100.0	100.0	100.0	100.0	100.0	100.0

Clean Wool Yield

The Tasmanian proportion of auctioned greasy wool classified as '60s and finer' in recent years has ranged from 31 to 39 per cent whereas the corresponding Australian proportion exceeds 70 per cent. In the matter of price, however, the Tasmanian auction average is usually a few cents above the Australian auction average. Tasmanian averages, with Australian equivalents in brackets have been (in cents): 1968-69, 105.60 (98.48); 1969-70, 87.92 (82.78); 1970-71, 74.01 (64.68); 1971-72, 85.96 (75.25). This apparent contradiction is explained by taking into account a second factor, not included in the foregoing quality analysis, namely the yield of clean wool that can be obtained from greasy wool. In respect of this factor, Tasmanian wools tend to yield higher than Australian; both natural and artificial environmental factors operate to the advantage of the Tasmanian clip. Evidence of this peculiarity of Tasmanian wool is provided in the next table:

Average Clean Yield of Wool Clip, Tasmania and Other Australian States
(Source: Australian Wool Board)

State of Sale (a)	Percentage of Clean Yield from Greasy Wool					
	1960-61	1966-67	1967-68	1968-69	1969-70	1970-71
N.S.W.	56.48	56.19	55.91	56.52	56.27	57.49
Victoria	59.05	59.72	58.70	59.58	59.83	59.19
Queensland	56.10	54.68	54.68	54.65	53.15	53.30
S.A.	53.67	54.00	52.53	55.14	53.98	53.49
W.A.	55.43	55.55	55.01	56.39	54.17	53.53
Tasmania	62.95	62.99	62.14	63.66	63.50	63.38
Australia	56.90	56.94	56.13	57.10	56.61	56.75

(a) Wool from other Australian States is not sold at Tasmanian auctions so, for Tasmania, 'State of Sale' and 'State of Origin' are virtually the same except that some wool from Tasmania (mainly King and Flinders Islands) is sold at Victorian auctions.

As the previous figures suggest, Tasmanian wool is freer from dust and vegetable matter than wool produced in the other States.

While the proportion of fine wool (60s and finer) is comparatively low in the Tasmanian clip (since the State is historically and climatically a producer of crossbred wool), growers offering '60s and finer' sell a high proportion of superfine merino wool at premium prices; this factor also operates to raise Tasmanian average auction prices above the Australian average.

Meat

Slaughtering

To fully record the level of meat production for human consumption, statistics should be obtained in respect of operations in abattoirs, other slaughtering establishments and factories; slaughtering on farms also needs to be taken into account. Information on this complete basis did not become available before 1912, previous statistics relating only to slaughtering in Hobart and Launceston. The following table has been compiled to give an indication of slaughtering activity since 1912:

Stock Slaughtered (a) for Human Consumption: Historical Summary
(⁰⁰⁰)

Year	Cattle and Calves	Sheep and Lambs	Pigs	Year	Cattle and Calves	Sheep and Lambs	Pigs
1912	29	216	16	1954-55 ..	75	643	79
1915	32	309	32	1959-60 ..	145	1,166	115
1924-25	36	276	55	1964-65 ..	174	987	135
1929-30	35	342	64	1967-68 ..	172	1,125	143
1934-35	38	349	51	1968-69 ..	178	1,241	139
1939-40	48	461	73	1969-70 ..	178	1,297	160
1944-45	47	509	58	1970-71 ..	162	1,394	171
1949-50	58	508	51	1971-72 ..	185	1,475	165

(a) In all registered slaughtering establishments and on farms.

The next table, compiled on the same basis, analyses the items 'Cattle and Calves' and 'Sheep and Lambs':

Stock Slaughtered (a) for Human Consumption: Historical Summary
(⁰⁰⁰)

Year	Cattle and Calves				Sheep and Lambs			Pigs
	Bulls, Bullocks & Steers	Cows and Heifers	Calves	Total	Sheep	Lambs	Total	
1959-60 ..	47	57	41	145	505	661	1,166	115
1964-65 ..	53	71	50	174	425	562	987	135
1965-66 ..	47	61	47	154	567	597	1,164	146
1966-67 ..	52	67	51	170	552	607	1,159	149
1967-68 ..	58	66	48	172	600	525	1,125	143
1968-69 ..	68	64	45	178	568	673	1,241	139
1969-70 ..	79	66	33	178	608	689	1,297	160
1970-71 ..	79	61	22	162	713	681	1,394	171
1971-72 (b) ..	96	69	19	185	813	662	1,475	165

(a) In all registered slaughtering establishments and on farms.

(b) In 1971-72 the farm components of total livestock slaughtered were: cattle and calves, 1,225; sheep and lambs 79,827; pigs, 1,887.

Meat Production

Statistics of actual carcass weight rather than numbers of stock slaughtered provide a more precise measure of actual meat production and annual trends. The necessary weight data are collected from abattoirs, factories and licensed slaughterhouses (including 'country butchers'); in the case of livestock killed on farms, only the numbers are available and the resulting carcass weight has to be estimated. Statistics in terms of carcass weight cover the same field as the previous tables on slaughtering. The following table shows details since 1924-25:

Production of Meat: Historical Summary
(*000 Tons—Carcass Weight)

Year	Beef and Veal	Mutton and Lamb	Pigmeat (a)	Total Meat	Year	Beef and Veal	Mutton and Lamb	Pigmeat (a)	Total Meat
1924-25	8.1	5.0	2.5	15.6	1959-60 ..	23.1	20.8	5.4	49.3
1929-30	8.0	6.0	2.8	16.8	1964-65 ..	26.3	18.1	6.6	51.0
1934-35	8.1	6.0	2.3	16.4	1967-68 ..	25.1	19.8	6.9	51.8
1939-40	10.6	7.7	3.5	21.8	1968-69 ..	27.9	22.5	7.0	57.4
1944-45	9.2	9.2	3.0	21.4	1969-70 ..	31.0	23.7	7.9	62.6
1949-50	12.3	8.9	2.6	23.8	1970-71 ..	29.4	25.7	8.4	63.5
1954-55	13.7	11.9	3.4	29.0	1971-72 ..	34.2	26.8	8.1	69.1

(a) Includes pork for manufacture into bacon and ham.

The next table, compiled on the same basis, analyses the items 'Beef and Veal' and 'Mutton and Lamb'.

Production of Meat
(*000 Tons—Carcass Weight)

Year	Beef and Veal			Mutton and Lamb			Pigmeat (a)	Total Meat
	Beef	Veal	Total	Mutton	Lamb	Total		
1966-67 ..	23.7	1.0	24.7	11.2	9.7	20.9	7.2	52.8
1967-68 ..	24.1	1.0	25.1	11.5	8.4	19.8	6.9	51.8
1968-69 ..	27.1	0.8	27.9	11.5	10.9	22.5	7.0	57.4
1969-70 ..	30.4	0.6	31.0	12.6	11.1	23.7	7.9	62.6
1970-71 ..	29.0	0.4	29.4	14.5	11.1	25.7	8.4	63.5
1971-72 ..	33.9	0.4	34.2	16.1	10.7	26.8	8.1	69.1

(a) Includes pork for manufacture into bacon and ham.

Export of Meat

As early as 1890, other Australian States were exporting frozen (and later, chilled) lamb, mutton, beef and veal to overseas destinations but the development of a similar meat export trade from Tasmania has been of comparatively recent origin. The first major step was in the field of fat lamb production when the 1931-32 season resulted in approximately 19,000 carcasses being exported overseas; unfortunately the establishment of this activity coincided with the economic depression of the 1930s and the attempt to introduce a new line in 'mixed' farming was at first discouraged by low prices. World War II saw a revival of demand with over 100,000 carcasses exported overseas in 1943-44, and after something of a decline in the early post-war period, exports climbed to 161,815 carcasses in 1959-60. In recent years lamb exports have included greater proportions of processed cuts and therefore statistics of the number of lamb carcasses exported are no longer collected.

The other major development has been the growth of an export trade in beef and veal, the first shipments overseas commencing in 1954-55; also exports of mutton, mainly to Japan and U.S.A., increased substantially in 1965-66 and have been maintained at a high level since then. The following are meat export figures expressed in tons. Export weights cannot be directly compared with production weights since the former include boneless meat and meat which has had its fat content reduced, while the latter are in terms of carcass weight.

Total Exports of Meat, 1971-72
(Tons)

Destination	Beef and Veal	Lamb	Mutton	Pork	Offal (Edible)	Bacon and Ham
Interstate	743	88	121	2,088	107	166
Overseas	9,212	590	6,858	33	890	..
Total	9,955	678	6,979	2,121	997	166

The importance of Tasmania's overseas meat trade can be judged from Australian Meat Board estimates of the percentage of Tasmanian production actually exported. The trend in recent years is shown in the following table:

Proportion of Tasmanian Meat Production Exported Overseas (a)
(Source: Australian Meat Board)
(Per Cent)

Type of Meat	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Beef and Veal	31.5	29.8	30.9	34.6	r 32.2	43.8
Mutton	44.1	44.7	49.4	47.5	43.1	58.7
Lamb	10.8	3.3	8.8	10.1	6.6	5.9

(a) The estimated percentages are derived by converting actual export weights to a carcass weight equivalent, thus giving a basis for comparison with production figures.

Meat Export Works

In 1971-72 there were seven licensed exporters in Tasmania. These were in Launceston (three), Devonport (two), Hobart and Perth.

In broad terms, it is true to say that Tasmania has changed from a meat importing to a meat exporting State and this development can be related to the changed pattern of farming, the most significant indicators being the increase in the area of sown pasture and in the number of livestock carried.

Bacon and Ham

In the tables on meat production, the product from pig slaughtering has been referred to as 'pigmeat'. Approximately 24 per cent of Tasmania's pigmeat was converted in Tasmania to bacon and ham in 1971-72. Considerable quantities of pigmeat are also exported and used, in part, for making bacon and ham in other States. The next table summarises the production of bacon and ham since 1939-40:

Primary Industry—Rural
Production of Bacon and Ham
 (Tons)

Year	Bacon and Ham			Year	Bacon and Ham		
	Factory (a)	Farm	Total		Factory (a)	Farm	Total (b)
1939-40 ..	1,142	150	1,292	1964-65 ..	1,158	13	1,171
1944-45 ..	1,122	68	1,190	1968-69 ..	1,394	<i>n.a.</i>	1,394
1949-50 ..	948	43	991	1969-70 ..	1,381	<i>n.a.</i>	1,381
1954-55 ..	992	35	1,027	1970-71 ..	(c) 1,775	<i>n.a.</i>	(c) 1,775
1959-60 ..	1,120	24	1,144	1971-72 ..	1,953	<i>n.a.</i>	1,953

(a) From 1959-60 includes small quantities made in establishments not classified as factories.

(b) Excludes farm production from 1967-68.

(c) From 1970-71 all weights are on a bone-in basis; earlier figures include an element of unconverted bone-out weights.

Dairy Products

In 1971-72 Tasmania's production of milk was 99,234,000 gallons which was approximately four per cent below the record level of 1969-70. Milk used for cheese manufacture increased from one per cent of total milk production in 1960-61 to 13 per cent during 1971-72.

The following table summarises milk production and utilisation since 1954-55:

Milk Production and Milk Utilisation: Summary

Year	Quantity of Milk Used for—			Total Milk Production	Dairy Cows at 31 March	Average Annual Production of Milk per Dairy Cow (b)
	Factory Butter	Factory Cheese	Other Purposes (a)			
	'000 gal	'000 gal	'000 gal	'000 gal	no.	gal
1954-55	38,737	548	12,736	52,021	111,781	485
1959-60	54,597	735	14,894	70,226	126,183	554
1964-65	64,621	5,265	17,457	87,343	(c) 143,257	(d) 589
1966-67	66,520	8,411	r 16,487	r 91,418	149,148	591
1967-68	64,046	10,408	16,339	90,793	152,179	581
1968-69	72,546	12,837	16,781	102,164	152,894	647
1969-70	74,067	11,921	17,225	103,213	155,040	650
1970-71	69,097	r 12,248	r 17,595	r 98,940	153,402	623
1971-72	69,181	13,016	17,037	99,234	154,825	628

(a) Milk used for 'Other Purposes' goes into the making of cream, ice cream, milk powder, concentrated milk, and other preserved milk products. It includes milk consumed as such and the milk equivalent of farm-made butter and cheese.

(b) Average annual yield is based on the estimated number of dairy cows, including house cows, which were in milk during any part of the year. (The mean of the number of dairy cows and house cows at 31 March in the year of production and in the preceding year is used for this purpose.) The figures should therefore be treated as an index rather than as an actual average quantity of milk produced per dairy cow.

(c) From 1963-64, the farm census recorded house cows (i.e. kept primarily for own milk supply) as a separate item excluded from the dairy cow population. It follows that figures for 1963-64 and subsequent years are not strictly comparable with those of previous years.

(d) As a result of revised classifications of cattle adopted from 1963-64 the average annual yield is not strictly comparable with figures for previous years.

Production of Butter and Cheese

The Australian dairy industry is capable of producing butter and cheese in quantities considerably greater than are required for domestic consumption but competition from other countries in overseas markets has resulted in low prices which tend to discourage exports. The solution to this problem has been, in general terms, to pool the returns from both domestic sales and overseas sales and to distribute from the pool to each individual factory, irrespective of whether its products are sold at home or abroad; in effect, a process of price equalisation operates, the higher domestic price being used to offset the lower overseas price. The administrative body implementing this scheme is the Commonwealth Dairy Produce Equalisation Committee Ltd.

The industry also receives subsidies from the Commonwealth Government under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942. Under the sixth five-year plan, which commenced on 1 July 1972, subsidies are distributed each year by the Commonwealth Dairy Produce Equalisation Committee Ltd through factories to milk producers by payment on butter and cheese manufactured. In 1972-73 a subsidy of \$27.0m was guaranteed for distribution by the Commonwealth Government. The amount of the subsidy may be reviewed for subsequent years. In 1971-72 the Government provided subsidy was \$8.93 a cwt of butterfat produced for butter and cheese production.

In the 1973-74 Budget the Commonwealth Government announced its intention to phase out bounties paid on the production of butter and cheese. The last year of payment will be 1974-75.

Farmers in the past traditionally 'separated' their milk, producing a cream concentrate for delivery to the butter factory; the residue, skim milk, was used to feed pigs. Most factories now buy whole milk because they have diversified their output to include casein (a raw material for synthetic fibres, etc.) and dried skim milk.

Farm production of butter and cheese in the post World War II period fell to such low levels that collection of details was discontinued after 1964-65.

Although Tasmanian butter factories had been in operation before the turn of the century it was not till 1911 that annual factory production exceeded 1,000 tons and even by 1938-39 factory butter output was only approximately 4,000 tons; current production approximates 15,000 tons.

Cheese production, which did not exceed 1,000 tons per annum until 1963-64, has accelerated rapidly and exceeded 5,800 tons in 1971-72.

The following table shows details of factory production of butter and cheese for recent years:

Factory Production of Butter and Cheese
(Tons)

Year			Butter (a)	Cheese	Year			Butter (a)	Cheese
1962-63	..	..	13,097	643	1967-68	..	..	13,778	4,646
1963-64	..	..	13,667	1,337	1968-69	..	..	15,764	5,728
1964-65	..	..	13,903	2,350	1969-70	..	..	16,085	5,322
1965-66	..	..	14,004	2,942	1970-71	..	..	15,032	5,468
1966-67	..	..	14,311	3,763	1971-72	..	..	15,076	5,811

(a) Includes butter equivalent of butter oil.

Disposal of Butter

Tasmania is a butter exporting State as shown in the following table:

**Butter (a): Production, Exports and Local Consumption
(Tons)**

Year	Production (Farm and Factory)	Net Exports (b)	Local Consump- tion (c)	Year	Production (Farm and Factory)	Net Exports (b)	Local Consump- tion (c)
1962-63 ..	13,193	8,642	4,521	1967-68 ..	13,778	9,396	4,698
1963-64 ..	13,763	8,227	4,885	1968-69 ..	15,764	9,572	4,448
1964-65 ..	13,999	10,231	4,527	1969-70 ..	16,085	13,073	4,650
1965-66 ..	(d)14,004	9,295	4,390	1970-71 ..	15,032	r 10,488	r 4,591
1966-67 ..	14,311	10,079	4,408	1971-72 ^p	15,076	10,599	4,638

(a) Includes butter equivalent of butter oil.

(b) Net and gross are identical as there were no imports during the years shown. Includes overseas and inter-state exports.

(c) Quantity of butter released for the Tasmanian market (as supplied by the Commonwealth Dairy Produce Equalisation Committee Ltd) less the butter content of major commodities exported.

(d) Excludes farm production from 1965-66.

Consumption of Butter

Over the past decade there has been a substantial decline in the annual Tasmanian per capita consumption of butter. The decline may be partly attributed to the greater use of margarine. However, in 1971-72 the State's average butter consumption of 26.5 lb per head of population was still well above the corresponding Australian figure of about 19.1 lb per person.

Bee-farming

Bee-farming is a relatively small industry in Tasmania, the main Australian producing State being New South Wales. The next table, which summarises bee-keeping statistics over a period of 10 years, is restricted to details from apiarists with five or more hives.

Bee-farming

Year	Apiarists	Hives	Honey Produced		Beeswax Produced	
			Quantity	Average per Productive Hive	Quantity	Average per Productive Hive
	no.	no.	'000 lb	lb	'000 lb	lb
1961-62	164	6,651	279	57.1	3.8	0.78
1965-66	229	9,305	630	94.0	8.0	1.20
1966-67	223	9,668	386	59.0	6.5	1.00
1967-68	232	9,799	841	114.2	12.7	1.72
1968-69	213	9,210	671	91.8	10.6	1.45
1969-70	220	10,209	821	103.4	12.6	1.58
1970-71	277	11,680	1,002	107.9	14.1	1.52
1971-72	270	12,484	874	89.5	13.6	1.40

Of the 270 apiarists with five or more hives in 1971-72, 25 with 100 or more hives contributed 83.2 per cent of the total honey produced.

A proportion of the larger commercial apiarists can be described as 'migratory' in the sense that they seasonally move their hives for access to leatherwood growing in the Western Sub-division and near the new Lake Gordon. Leatherwood, *Eucryphia lucida*, from which a distinctively flavoured honey is produced, has a large white flower and the species is unique to Tasmania. The quantity of leatherwood honey produced varies considerably from year to year depending upon the amount of blossom and weather conditions. In 1971-72 it accounted for 53 per cent of total honey production compared with only 21 per cent in 1966-67. Some hives are also moved into orchard and small fruit areas at blossom time. The sources of honey for the Tasmanian market and estimated honey consumption per head of population are shown in the following table:

Production and Consumption of Honey

Average for Three Years Ended—	Production	Imports	Exports	Balance Available For Local Consumption (a)	Estimated Average Consumption Per Person
	'000 lb	'000 lb	'000 lb	'000 lb	lb
1961-62	339	140	60	419	1.20
1971-72	899	186	680	405	1.04

(a) Production *plus* imports *less* exports.

Poultry Farming

Household Production: Many householders have small flocks of up to 20 birds (i.e. below the legal minimum requiring registration and payment of fees) and surveys suggest that these 'back-yard' flocks may produce up to 50 per cent of all eggs. However, no accurate statistics are available for this component and it is excluded from the tables that follow.

Commercial Producers: Producers with small flocks over the legal minimum size (more than 20 birds) may nevertheless keep them mainly for their own use rather than for sale of the eggs and accordingly it was also decided to exclude from the statistics, producers with less than 100 birds (of all types); the Bureau's 1966-67 census of the poultry industry established that producers in this excluded category numbered 213 but owned only three per cent of the total number of hens and laying pullets in commercial flocks in Tasmania.

In the poultry industry, as in many other primary industries, there has been a trend to fewer but larger establishments in recent years. In 1967 there were 196 poultry farms with a total of 189,600 hens and laying pullets; by 1972 the number of farms had decreased to 121 with 178,600 hens and laying pullets and 298,600 other poultry. A size classification of the 121 farms in 1972 shows that 20 farms (only 17 per cent of farm numbers) possessed 65 per cent of the laying stock. Some 50 per cent of the poultry farms had less than 500 laying birds each.

The following table shows: (i) the number of poultry on those 121 poultry farms which reported a total of 100 or more birds of all types at 30 June 1972; and (ii) the eggs produced from hens and pullets during 1971-72.

Poultry Numbers and Egg Production, 1971-72
Commercial Producers Only (a)

Statistical Division and Sub-division	Poultry Farms	Poultry Numbers at End of Year			Eggs Produced During Year (b)
		Hens and Laying Pullets	Other Fowls	Ducks and Drakes, Turkeys and Geese	
Hobart	no. 30	'000 54.7	'000 29.5	'000 0.4	'000 doz 1,036.9
Southern	32	43.6	219.0	5.5	738.8
Northern—Tamar	28	46.9	25.3	0.1	797.1
North Eastern	5	8.5	1.4	..	155.3
Total	33	55.4	26.6	0.1	952.4
Mersey-Lyell—North Western	20	24.8	15.6	1.9	447.5
Western .. .. .	..	..	..	..	..
Total	20	24.8	15.6	1.9	447.5
Total Tasmania	115	178.6	290.7	7.9	3,175.6

(a) Includes only producers with a total of 100 or more birds of all kinds.

(b) Hen and pullet eggs only. Includes 16,930 dozen eggs produced by commercial poultry farms which ceased production before 30 June 1972.

Size Structure of Slaughtering Industry

The following table classifies poultry slaughtering establishments according to the number of birds slaughtered:

Number of Poultry Slaughtered According to Size of Establishment, 1971-72

Size of Establishment (Number of Birds Slaughtered) (a)	Number of Establish- ments	Number of Birds Slaughtered			Total Birds Slaughtered	
		Chickens (b)	Other Fowls (c)	Ducks and Drakes, Turkeys and Geese	Number	Proportion of Total
100- 500	12	'000 1	'000 2	'000 ..	'000 3	per cent 0.2
501- 1,000	4	1	2	..	3	0.2
1,001- 1,500	6	2	6	..	8	0.5
1,501- 2,000	1	2	..	..	2	0.1
2,001- 3,000	3	3	4	..	7	0.4
3,001- 5,000 .. ..	..	..	..	..	..	..
5,001-10,000	4	10	12	8	30	1.9
10,001-20,000 .. ..	..	..	..	..	..	..
Over 20,000	6	1,383	113	12	1,508	96.7
Total	36	1,402	138	20	1,560	100.0

(a) Classified according to number of birds of all kinds slaughtered.

(b) Includes broilers, fryers and roasters.

(c) Hens, roosters, etc.

Poultry Slaughtering

Poultry slaughtering statistics were first collected in 1960-61 from all known establishments slaughtering 100 or more birds (of all types) annually; up to 1964-65, only numbers slaughtered were sought but from 1965-66 data were expanded to include both live and dressed weight.

Number and Weight of Poultry Slaughtered (a)

Year	Number	Live Weight		Dressed Weight (b)	
		Total	Average per Bird	Total	Average per Bird
	'000	'000 lb	lb	'000 lb	lb
CHICKENS (c)					
1969-70	978	3,476	3.6	2,566	2.6
1970-71	1,103	4,083	3.7	2,936	2.7
1971-72	1,402	4,930	3.5	3,462	2.5
OTHER FOWLS (d)					
1969-70	115	503	4.4	363	3.2
1970-71	119	585	4.9	390	3.3
1971-72	138	686	4.9	454	3.3

Number and Weight of Poultry Slaughtered (a)—continued

Year	Number	Live Weight		Dressed Weight (b)	
		Total	Average per Bird	Total	Average per Bird
	'000	'000 lb	lb	'000 lb	lb
DUCKS AND DRAKES, TURKEYS AND GEESE					
1969-70	35	265	7.5	205	5.8
1970-71	28	244	8.7	190	6.8
1971-72	20	146	7.4	107	5.4

(a) Includes only establishments slaughtering 100 or more birds of all kinds.

(b) Includes weight of whole birds, pieces and giblets.

(c) Includes broilers, fryers and roasters.

(d) Hens, roosters, etc.

The trend in poultry slaughtering in recent years has been towards larger establishments. In 1965-66 there were 95 establishments slaughtering 100 or more birds (of all types). Nine establishments killing more than 5,000 birds each a year, slaughtered a total of 606,000 birds. By 1971-72, however, there were only 36 establishments killing 100 or more birds, 10 of which slaughtered over 5,000 birds each, or a total of 1,538,000 birds. The dressed carcass weight of birds slaughtered in those establishments slaughtering over 20,000 birds was 3,859,000 lb; for all establishments in the table, the total was 4,023,000 lb. In 1965-66 the over 20,000 birds size-group accounted for 83.3 per cent of the number of birds slaughtered and in 1971-72, 96.6 per cent.

A principal factor in creating a larger poultry slaughtering industry has been the marketing of quick-frozen birds through supermarkets, delicatessens, grocers, etc. Before freezing cabinets were in general use, poultry was mainly sold by butchers; refrigeration techniques have had the effect of multiplying the sales outlets. Large scale production has also cut unit costs.

RURAL POPULATION AND EMPLOYMENT

Employment on Rural Holdings

The following table gives details of males working on rural holdings as reported in the annual farm census at 31 March:

Male Farm Workers at 31 March

Particulars	1962	1968	1969	1970	1971	1972
Number of Rural Holdings (One Acre and Over)	11,117	10,631	10,384	10,159	9,926	9,807
Permanent Full-time Workers—						
Owners, Lessees or Share Farmers ..	7,614	7,158	6,915	6,760	6,652	6,515
Relatives of Owners, etc. (Over Fourteen Years) not Receiving Wages ..	93					
Employees (a)	4,090	4,051	3,842	3,485	3,082	3,166
Total	11,797	11,209	10,757	10,245	9,734	9,681
Temporary Workers on Wages or Contract	5,332	4,621	4,831	4,609	4,703	4,179

(a) Includes managers and relatives receiving wages or salaries.

Female Workers on Rural Holdings

Similar details of female employment are not available due to a definitional difficulty in establishing in what degree a woman performing ordinary domestic duties on a rural holding performs other rural tasks that justify her classification as a permanent full-time rural worker, in the same sense that the term is applied to a male.

TECHNICAL ASPECTS OF RURAL INDUSTRY**Artificial Breeding***Introduction*

Artificial breeding is a technique applicable to animals, birds and bees, whereby a female is inseminated artificially with semen collected from a male. In Tasmania, its main application has been in cattle and is used to a lesser extent for pigs.

Use of artificial breeding allows more effective use of superior bulls; in addition, infertility diseases such as *vibriosis*, *brucellosis* and *trichomoniasis*, all of which are transmitted by bulls, can be more effectively controlled.

In Tasmania most artificial breeding activities are undertaken by the Artificial Breeding Board which operates a Semen Production Centre at Hadspen Park and eight artificial insemination centres, although some activities are carried out from private centres.

Semen Imports

Semen can be imported into Tasmania from all Australian States, New Zealand, United Kingdom, Canada and Ireland. Since the lifting of export restrictions in the United Kingdom in 1968 the bulk of importations has been made from this country. The main interest has been in charolais, simmental and limousin, all European breeds, but smaller quantities of semen from other beef and dairy breeds have also been imported. The first importations of semen from Canada arrived in April 1973; the consignment comprised Canadian holstein and European beef breeds.

Semen Exports

Semen produced at Hadspen Park is exported to all mainland States and several other countries. Early in 1971 substantial shipments were despatched to Ceylon, Malaysia and New Zealand, and in July of 1971 the first shipment of Tasmanian semen was despatched to Canada. In early December 1971, the Board contracted to supply 30,000 semen doses over a two-year period, to Canadian and U.S. customers. Total value of the contract was \$100,000.

Artificial Breeding Statistics

The following table gives details of Artificial Breeding Board activities in recent years:

Artificial Breeding: Services and Inseminations
(Source: Artificial Breeding Board)

Year	Cows Served			Total Inseminations	Non-return Rate for Commercial Service (b) (Per Cent)
	Commercial Service	Infertility Service (a)	Total Cows		
1966-67	29,034	2,298	31,332	47,148	66.1
1967-68	41,892	197	42,089	60,587	68.3
1968-69	(c)43,658		43,658	62,551	69.3
1969-70	49,818		49,818	70,350	70.2
1970-71	48,588		48,588	68,917	69.7
1971-72	55,505		55,505	81,581	66.1

(a) Includes cows inseminated in Department of Agriculture's research programme.

(b) Percentage of cows not returning for further service within 90-120 days following first service.

(c) Separate figures not available after 1967-68; infertility service numbers are negligible.

Freeze Branding

In 1969 the Board introduced a freeze branding service. Freeze branding involves immersing a copper brand in dry ice and alcohol or liquid nitrogen, reducing its temperature to -79°C . The brand is then applied to the beast's hide and results in the hair follicle being killed; consequently the hair turns white. In the case of light coloured cows the brand is held on the hide longer, resulting in complete removal of the hair. This is a painless procedure and results in a clear brand which can be read without difficulty at a considerable distance and is of great assistance to breeders in identifying cows for mating programmes.

Performance Recording

In March 1972 the Board began a beef cattle performance recording service taking over the weighing of cattle and processing of data from the Department of Agriculture. This service now forms part of the National Beef Recording Scheme.

Farm Machinery on Rural Holdings

A previous table showing male farm workers over a 10 year period indicated a steady fall in the rural labour force. This decline must be associated, in some degree, with the increasing use of machinery on farms. The following table gives details of machinery on rural holdings at 31 March:

Machinery on Rural Holdings at 31 March

Type of Machinery	1962	1968	1969	1970	1971	1972
Cultivating Equipment—						
Rotary Hoes and Rotary Tillers—						
Self Contained Power Unit Type..	1,112	1,284	1,292	1,240	1,196	1,204
Tractor Mounted or Trailing Type	605	927	962	878	906	1,105
Harvesting Equipment—						
Headers, Strippers and Other Har-						
vesters	656	726	711	628	700	674
Mowers, Agricultural—						
Reciprocating (Cutter Bar) Type—						
Power Drive	4,341	5,134	5,139	5,029	4,942	n.a.
Ground Drive	1,510	664	617	564	512	n.a.
Rotary Types (incl. Slashers, etc.)..	n.a.	1,197	1,392	1,588	1,607	n.a.
Hay Rakes—						
Side Delivery	1,977	2,543	2,609	2,604	2,614	n.a.
Buck	1,027	983	954	926	} 1,640	n.a.
Dump	1,233	848	796	763		
Forage Harvesters	186	317	329	348	349	357
Pick-up Balers	1,346	1,903	1,957	2,003	2,019	2,044
Potato Diggers	1,020	958	923	893	849	n.a.
Potato Harvesters	n.a.	n.a.	70	77	95	n.a.
Seeding and Planting Equipment—						
Grain Drills (All Types)	3,899	3,944	3,925	3,861	3,736	3,600
Fertiliser Distributors & Broadcasters—						
Rotary	3,225	4,149	4,177	4,217	4,229	4,287
Direct Drop	1,947	1,911	1,799	1,763	1,654	1,545
Potato Planters	210	270	281	295	289	n.a.
Other Equipment—						
Shearing Machines (Number of Stands)	4,113	4,824	4,862	4,839	n.a.	4,505
Milking Machines (Number of Stands)	12,220	16,968	17,057	16,941	n.a.	16,187
Hammer Mills	301	635	644	680	691	n.a.
Spray Plants, Power Driven	2,351	2,996	2,958	2,918	2,913	2,525
Irrigation Plants, Power Driven	1,280	2,473	2,479	2,495	2,413	2,316

The next table shows tractor numbers during the last 10 year period:

Number of Tractors on Rural Holdings at 31 March

Type of Tractor	1962	1968	1969	1970	1971	1972
Wheeled	9,035	11,478	11,640	11,764	11,701	11,716
Crawler	962	1,186	1,110	1,192	1,238	1,147
Total	9,997	12,664	12,750	12,956	12,939	12,863

Artificial Fertilisers

Until 1967-68 there was a trend to greater use of artificial fertilisers, not only in total, but also in the average application per acre. The need to reduce costs because of falling prices for some farm products, coupled with research results indicating that high quantities were not needed to maintain pasture growth, resulted in reduced quantities of artificial fertilisers being used. Although the total area of improved pastures has been increasing each year the area fertilised has declined; in 1971-72 less than 57 per cent of improved pastures were fertilised compared with 90 per cent four years earlier.

The following table shows the amount of artificial fertiliser used, by the type of crop, for recent years.

Artificial Fertilisers Used

Particulars	Unit	1961-62	1968-69	1969-70	1970-71	1971-72
Vegetables (a)—						
Area Fertilised	'000 acres	48	29	27	21	22
Fertiliser Used—Total	'000 cwt	164	184	174	143	153
Per Acre	cwt	3.43	6.43	6.40	6.98	7.00
Fruit—						
Area Fertilised	'000 acres	19	20	19	18	14
Fertiliser Used—Total	'000 cwt	97	141	146	136	100
Per Acre	cwt	5.21	7.14	7.58	7.66	7.29
Other Crops (b)—						
Area Fertilised	'000 acres	110	204	174	161	109
Fertiliser Used—Total	'000 cwt	227	414	349	327	217
Per Acre	cwt	2.07	2.03	2.00	2.03	2.00
Pastures (b)—						
Area Fertilised	'000 acres	1,154	1,481	1,473	1,325	1,235
Fertiliser Used—Total	'000 cwt	1,767	2,470	2,404	2,194	2,176
Per Acre	cwt	1.53	1.67	1.63	1.66	1.76
Total Usage—						
Area Fertilised	'000 acres	1,331	1,733	1,693	1,524	1,380
Fertiliser Used	'000 cwt	2,256	3,209	3,073	2,801	2,646

(a) Vegetables for human consumption only (except for 1961-62 data).

(b) 'Pastures' includes lucerne from 1971-72 but lucerne is included in 'Other Crops' for earlier years.

Types of Artificial Fertiliser

The basic types of artificial fertiliser employed are phosphatic (e.g. superphosphate), nitrogenous (e.g. sulphate of ammonia) and potassic (e.g. muriate of potash), their essential chemical contribution to plant nutrition being phosphoric oxide (P_2O_5), nitrogen (N) and potassium oxide (K_2O). Superphosphate, either 'straight' or with additives, is most widely used in Tasmania, the additives consisting of trace elements such as cobalt, molybdenum, copper, boron, zinc, etc. In addition to the basic fertiliser types, various combinations are also used. Due to the numerous fertiliser combinations on the market it has not been possible to obtain any detailed analysis of the types applied to various purposes.

Area of Land Irrigated

Comparison

In 1971-72, 1.5 million acres of land were irrigated in Victoria and 1.8 million acres in N.S.W. By way of contrast, the Tasmanian total was only 49,068 acres. Owing to the generally more reliable rainfall in Tasmania, scarcity of water is not such a problem as it is in the other Australian States, although quite a number of streams are not permanently flowing and drought conditions in some areas of Tasmania are not unknown.

Farm Storages

Until the late 1950s, Tasmanian irrigated areas were negligible except for long-established hop fields. The increasing use of spray irrigation on orchards, pastures, potato and other vegetable crops resulted in the total area irrigated rising to a peak of 66,243 acres in 1967-68. However, figures for subsequent years indicate a general decline in the use of irrigation, with only 49,068 acres being recorded for 1971-72. This trend could be a reflection of difficult economic conditions being experienced in the rural sector. Until recently, there was an almost complete dependence on natural stream flows but the need for some regulating storages has become apparent. Farmers have been constructing storages for their own use and the extension of this practice is seen as the logical solution in most areas because there are not many locations from which single large reservoirs can economically serve extensive areas of suitable land.

Cressy-Longford Irrigation Scheme

The first stage of the Cressy-Longford Irrigation Scheme, which involves diversion of water from the Poatina tailrace became operational in 1972. Apart from the privately operated Lawrenny estate scheme the Cressy-Longford scheme is the only large scale irrigation works in Tasmania utilising a common water supply. The scheme has 60 miles of earthen channels and provides irrigation for approximately 20,000 acres—there are 64 farmers who are direct participants in the scheme. The flow of two downstream rivers is augmented increasing available irrigation water to downstream farmers.

Estimated cost of the scheme is \$1.07m of which the Commonwealth's share is \$750,000.

Area Irrigated

A total of 1,713 farms reported the use of irrigation in 1971-72 compared with 1,522 in the previous year. Details of the area of crops and pastures irrigated in Tasmania are shown in the following table:

**Area of Crops and Pasture Irrigated
(Acres)**

Year	Crop					Pasture	Total
	Hops	Green Feed	Fruit	Potatoes	Other		
1962-63 ..	1,465	2,043	4,446	1,688	3,208	11,435	24,285
1963-64 ..	1,463	2,703	5,933	1,984	5,794	15,693	33,570
1964-65 ..	1,553	2,583	5,955	2,246	7,791	14,194	34,322
1965-66 ..	1,524	3,948	7,241	4,216	10,616	17,651	45,196
1966-67 ..	1,495	5,433	8,287	4,100	9,799	18,111	47,225
1967-68 ..	1,587	6,273	9,042	5,887	14,275	29,182	66,243
1968-69 ..	1,550	3,784	8,157	6,316	13,282	23,167	56,252
1969-70 ..	1,440	5,103	7,663	5,418	14,878	25,429	59,929
1970-71 ..	1,246	3,543	4,977	4,715	8,657	22,590	45,728
1971-72 ..	n.a.	n.a.	7,397	5,568	(a)11,515	(a)24,588	49,068

a) From 1971-72 lucerne included with pasture.

Irrigation Methods and Sources of Water

In 1967-68, for the first time, statistics of irrigation methods and source of water used for irrigation were collected. The main method of irrigation is by 'spray' which accounted for 77 per cent of the total area irrigated in 1971-72. The following table gives details of the areas of crops, etc., irrigated and the methods of irrigation used:

Methods of Irrigation, 1971-72
(Acres)

Crop or Pasture Irrigated	Method				Total
	Sprays	Furrows	Flood	Other and Multiple Methods (a)	
Crop—					
Potatoes	5,525	13	..	30	5,568
Other Vegetables ..	6,891	3	1	5	6,900
Fruit	6,614	87	264	432	7,397
Other	3,825	437	330	23	4,615
Pasture (incl. Lucerne) ..	14,787	1,500	8,246	55	24,588
Total	37,642	2,040	8,841	545	49,068

(a) Includes 102 acres of fruit watered by the 'trickle' method of irrigation.

Potatoes respond particularly well to irrigation—yields from irrigated crops frequently exceed 10 tons per acre. For the 1971-72 season the State average potato yield from irrigated areas was 9.42 tons per acre while for non-irrigated potato crops the yield was only 5.08 tons per acre. The next table highlights the importance of irrigation in the potato growing industry:

Potatoes Irrigated

Particulars	1961-62	1968-69	1969-70	1970-71	1971-72
Total Area of Potatoes Planted .. acres	11,129	11,461	9,367	8,994	8,879
Area Irrigated—					
Total acres	1,374	6,316	5,418	4,715	5,568
As Proportion of Area Planted per cent	12.3	55.1	57.8	52.4	62.7

The next table shows areas irrigated from each source of water:

Source of Water for Irrigation

Source of Water	Area Irrigated (Acres)		Number of Holdings Reporting Each Source of Water	
	1970-71	1971-72	1970-71	1971-72
Surface Water from—				
Communal Irrigation Schemes	1,559	n.a.	12	n.a.
State Irrigation Schemes	n.a.	12	12	1
Rivers, Creeks, etc.	21,057	23,871	553	643
Farm Dams, etc.	22,359	24,290	942	1,077
Underground Water Supply (Bore, Well, etc.)	341	551	27	41
Town or Country Reticulated Supply ..	412	344	81	70
Total	45,728	49,068	(a) 1,522	(a) 1,713

(a) This is the total number of holdings reporting the use of irrigation and not the total number of holdings reporting each source of water since one holding may report a number of different sources.

TASMANIAN DEPARTMENT OF AGRICULTURE

Aims and Structure

The Department of Agriculture (originally the Agricultural Bureau of Tasmania) was created in the late 1880s with very narrow aims, principally to administer plant and animal regulations and advise the Government on all phases of agriculture. In 1927, however, the State Government decided to reorganise the Department, a new aim having been suggested by the Commonwealth Development and Migration Commission which most strongly urged the spread of scientific knowledge among primary producers.

The functions of the modern Department are: (i) active research and investigation into agricultural problems; (ii) wide dissemination of technical information and other advice to farmers; and (iii) regulatory and administrative action as required under various State Acts.

To carry out the functions associated with agriculture, the Department, headed by the Director, is divided into five *divisions* (agronomy, horticultural, animal production, plant pathology and entomology), three *services* (extension, animal health and administrative) and one *section* (agricultural economics). The Department has its own laboratories, research stations and experimental farms. In addition, the Director administers the Sea Fisheries Division.

Research and Investigations

Introduction

The fundamental work undertaken in the State's research farms and laboratories is aimed at increased productivity through improvements in plant and animal performance.

At present, there are three research centres and one laboratory associated with agronomical research, two research centres and a laboratory involved in horticultural research, one bacteriological laboratory devoted to dairy research and bacterial investigations, and laboratories which deal with entomological and plant pathological investigations. Livestock studies are conducted at two of the centres associated with agronomical research and laboratory facilities are provided at Mt Pleasant (Launceston).

THE ECONOMIC STRUCTURE OF THE TASMANIAN SHEEP INDUSTRY

The following article was contributed by Mr G. C. Edwards, B.Ag.Ec. (Hons), D.D.A., Agricultural Economist.

Introduction

Source of Data

The tables and graphs used in this article are based on data derived from two sources: (i) Bureau of Census and Statistics data; (ii) Bureau of Agricultural Economics sheep industry surveys. In order to be included in a B.A.E. survey a sheep farm must (a) run 200 or more sheep; (b) provide full-time occupation for at least one man; and (c) not be principally a stud or used for dealing.

History

Sheep arrived with the early settlers in the colony—in 1804 a livestock return for the infant colony recorded 'Rams, 4, Ewes, 34, wethers, 2, lambs, 21.' From these small beginnings the number of sheep had increased to almost 600,000 by 1830. Two factors stimulated this rapid growth: (i) free grants of land well suited to sheep grazing combined with cheap convict labour to clear land and tend flocks; (ii) a growing demand by Yorkshire textile mills for wool. (In 1828 240,000 kg of wool were exported from Tasmania and the price paid for the wool ranged from 30 to 50 cents per kilogram.) The period 1830 to 1855 witnessed further rapid expansion of the industry. Development was promoted by large-scale free land grants combined with a

continued high demand for wool by the English market. In 1855 sheep numbers had reached 1.8 million. There then followed a gradual decline in the sheep industry brought about largely by increased competition from mainland colonies. The economic depression of the early 1890s seriously affected the Tasmanian industry and in 1895 sheep numbered only 1.5 million. The 1900s saw a gradual recovery in the industry and a steady increase in numbers and by 1930 sheep numbers reached 2.1 million. Boom wool prices during the early 1950s gave considerable stimulus to the industry—sheep numbers increasing from 2.2 million in 1950 to 2.6 million by 1955. Sheep numbers continued to increase until 1970 when a maximum of 4,560,000 was recorded. The increase in this latter period resulted from higher carrying capacity on properties brought about by the drastic reduction in the rabbit population, the widespread use of super-phosphate and the introduction of improved grass types. The decline in rabbit numbers resulted from the spread of myxomatosis throughout the State.

Significance of the Sheep Industry

Of the 9,807 rural holdings in Tasmania at 31 March, 1972 4,257 or 43 per cent, carried sheep. However, half the holdings with sheep have flocks of less than 200 and account for only 3.5 per cent of total number. The bulk of the sheep population is carried on large properties with approximately 22 per cent of the holdings running 91 per cent of the State's sheep flock. For 73 per cent of the sheep producers in the State the principal activity is wool production with the remaining 27 per cent engaged mainly in prime lamb production. The value of commodities produced by the sheep industry (wool, skins, lamb and mutton) forms a significant proportion of the gross value of rural production in Tasmania as shown by the following table.

Gross Value of Production: Sheep Products and Total Rural Industries
(Source: Bureau of Census and Statistics)

Particulars	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Wool (a)	\$'000 22,405	\$'000 20,983	\$'000 15,609	\$'000 21,180	\$'000 18,081	\$'000 14,983	\$'000 18,001
Sheep and Lambs Slaughtered (b)	6,382	6,418	5,396	5,852	6,464	5,734	5,634
Total Sheep Products ..	28,787	27,401	21,005	27,032	24,545	20,718	23,635
Total Rural Products ..	107,824	114,367	110,258	117,425	114,822	110,193	114,099
Sheep Products as a Proportion of Total Rural ..	% 26.7	% 24.0	% 19.1	% 23.0	% 21.4	% 18.8	% 20.7

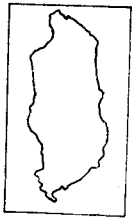
(a) Shorn, dead, fellmongered and exported on skins.

(b) Excludes wool on skins.

Falling wool and meat prices lowered the proportional contribution in 1970-71 and 1971-72, but with high prices for both wool and sheep meats in 1972-73, the sheep industry can be expected to regain its relative importance and once again make up about a quarter of the total gross value of rural production.


Location of the Industry

More than half the sheep population of the State is located in the midlands and north midlands area. This area has many extensive properties carrying large size flocks. (See Diagram 1.) Here the predominant sheep activity is wool growing, including merino and other wool breeds of sheep. In the north-east and south-east both wool and prime lamb production are widely practised while in the north-west and south prime lamb production from crossbreds is the main sheep farming activity. In the latter areas the flock size is generally smaller as holdings are mostly engaged in other types of farming as their main activity. Diagram 1, which follows, indicates the proportion of holdings with various size flocks according to the area of the State.



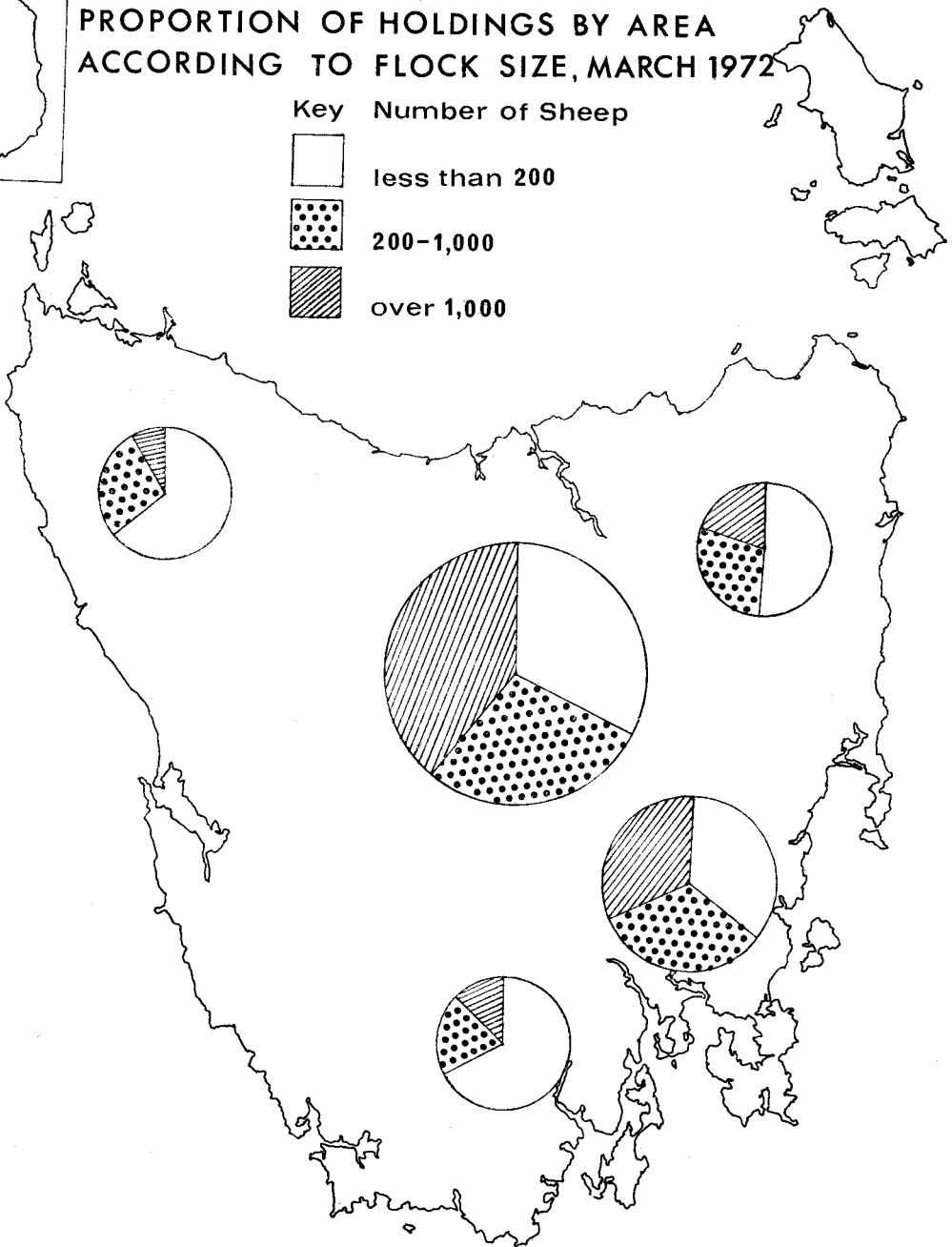
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PROPORTION OF HOLDINGS BY AREA
ACCORDING TO FLOCK SIZE, MARCH 1972

Key Number of Sheep

 less than 200

 200-1,000

 over 1,000



Types of Sheep-farming

Fine merino wool sheep constitute a small but important proportion of the State's flock. They are principally confined to large properties in the midlands with long-established saxon-merino strains. Tasmania is renowned for its superfine wool and often the annual Australian record auction price for wool goes to a Tasmanian merino clip. In February 1973 the Japanese firm of Mitsubishi paid \$5,382 for a bale of extra superfine merino wool from the Mt Morriston Estate at Ross. This amounted to a world record price of 4,600 cents per kilogram. Over the years, the Mt Morriston Estate, which runs 17,000 merinos on its 25,000 acres, has held several world record prices for its wool.

Most wool producing properties use the polwarth or corriedale breed or a comeback crossbred. These types of sheep are considered better foragers and more productive in terms of lambs and wool. Trading in sheep between the various types of sheep-farming is widely practised with a proportion of the ewes from wool flocks being mated to longwool breeds, such as border leicester and romney marsh, to provide crossbred ewes for the prime lamb producing flocks. The next diagram (Diagram 2) illustrates proportions of properties engaging in the different types of sheep farming.

In the decade from 1961 to 1971 there was a substantial shift from prime lamb production to non-merino woolgrowing. This trend is further evidenced in an examination of the table showing breed structure.

Sheep Breeds at 31 March
(Source: Bureau of Census and Statistics)

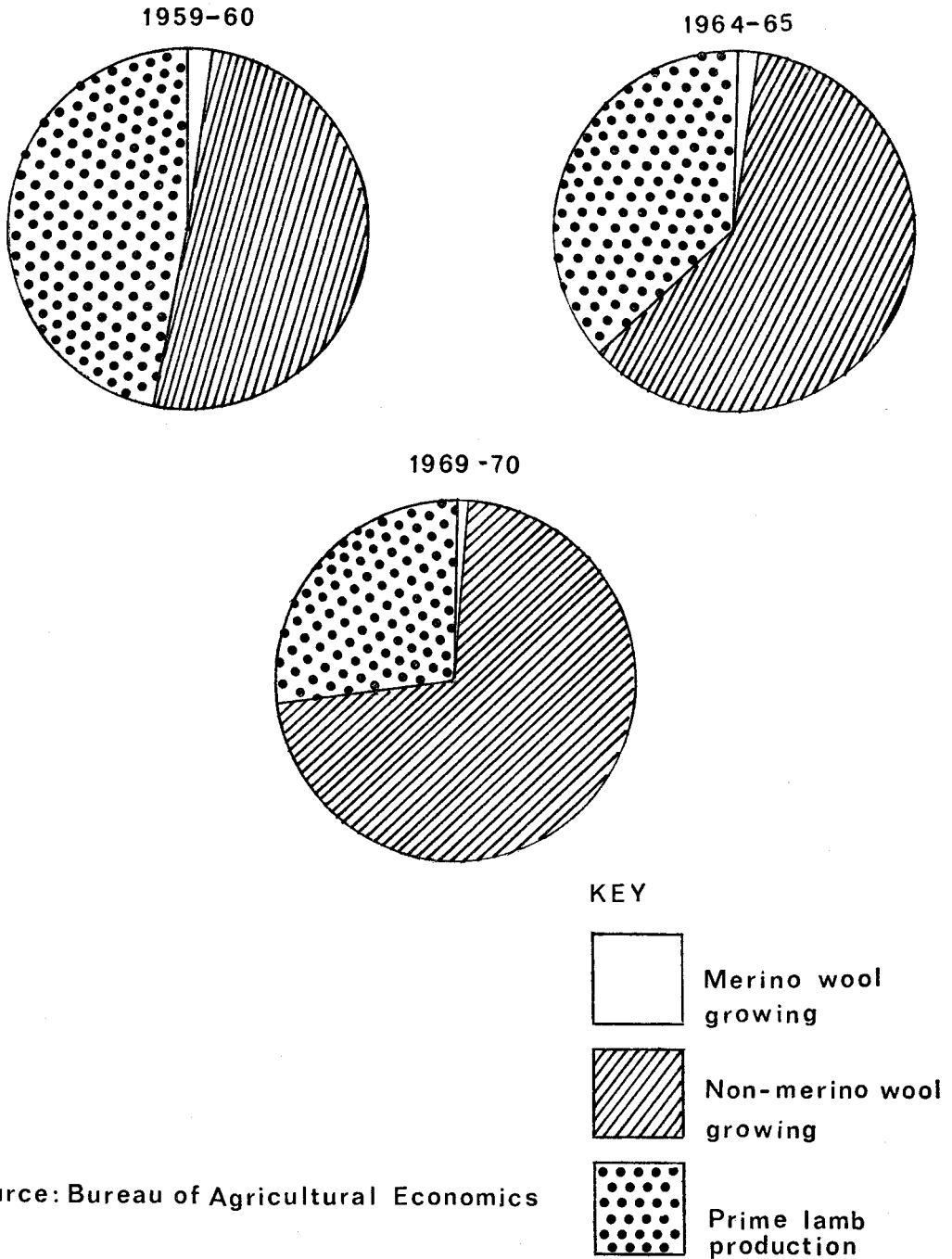
Breed	1961		1971	
	Number	Proportion of Total	Number	Proportion of Total
	'000	per cent	'000	per cent
Merino	350	10.2	402	8.9
Polwarth	1,073	31.2	1,971	43.6
Corriedale	481	14.0	652	14.5
Comeback	392	11.4	533	11.8
Border Leicester	53	1.6	33	0.7
Romney Marsh	88	2.6	58	1.3
Crossbred	885	25.7	678	15.0
Dorset Horn	34	1.0	32	0.7
Poll Dorset	18	0.5	47	1.0
Southdown	28	0.8	23	0.5
Other	35	1.0	89	2.0
Total	3,439	100.0	4,517	100.0

From 1961 to 1971 there was a marked decline in the number of crossbreds, which were used for prime lamb production. However during the same period sheep numbers used for wool production have increased significantly—most of the increase has been due to greater acceptance of the polwarth breed. This breed increased by 83 per cent from 1961 to 1971 and, with 43.6 per cent of total sheep numbers, the polwarth dominates the Tasmanian industry.

The large proportional increase in 'other' is largely due to the establishment and increasing acceptance of the cormo breed. This type of sheep has been specially developed by Mr I. K. Downie ('Dungrove', Bothwell) for the elevated sheep country of the State. The breed type has been fixed from an initial corriedale-saxon merino cross.

The very high proportion of flocks carried for non-merino woolgrowing makes the Tasmanian sheep industry distinctly different from the sheep industries in other States and gives the local industry the ability to rapidly change emphasis from wool to meat production according to market stimuli.

PROPORTION OF HOLDINGS ACCORDING
TO PRINCIPAL ENTERPRISE ACTIVITY



Source: Bureau of Agricultural Economics

A study of matings and intended matings by breed of ram and area indicates where the various sheep enterprise activities are located. Most matings in the south and north-west of the State are to British shortwool rams indicating prime lamb production. In all other areas matings to merino, polwarth and corriedale predominate. The midlands area provides the majority of matings to merino rams.

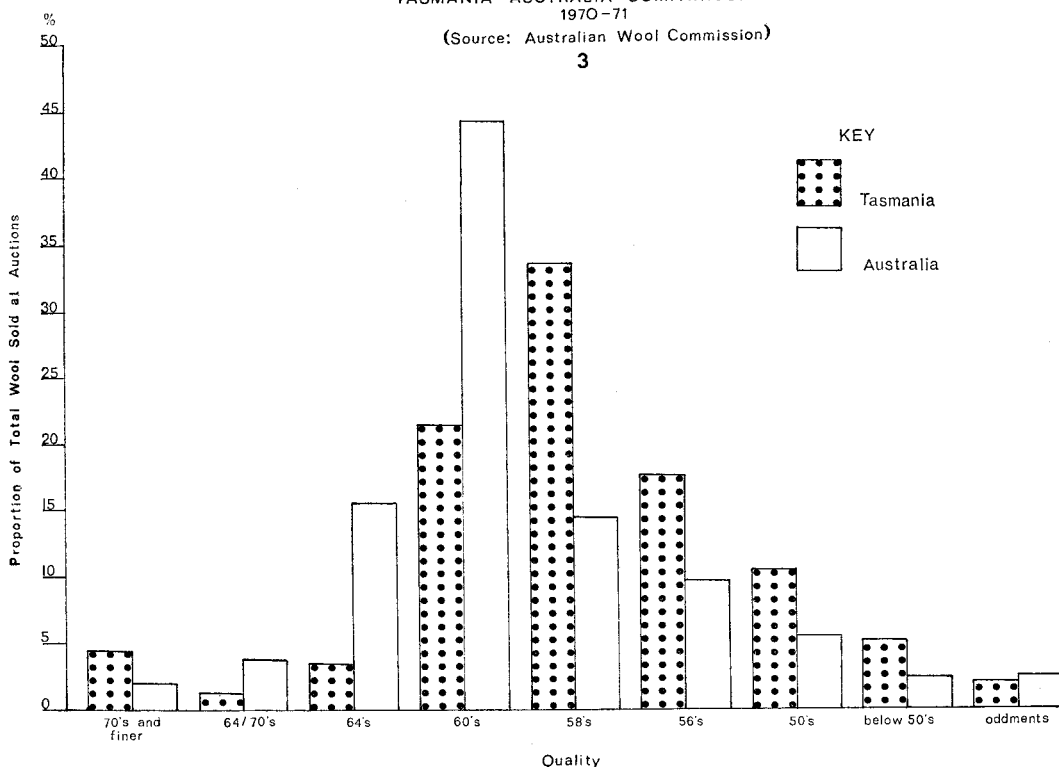
Wool Quality

Overall, Tasmania produces about two and a half per cent of the total Australian wool clip. However, in two particular wool qualities the State production forms a major proportion of national production. These are the superfine merino wools and fine comeback with 48 and 37 per cent, respectively, of the total Australian production of these qualities. The differing proportional make-up of the Tasmanian and Australian clips is illustrated in Diagram 3. A further point of interest is that the Tasmanian clip contains a much higher proportion of good style combing wools than the Australian clip due to the comparative freedom from vegetable fault and the absence of harsh environments.

GREASY WOOL SOLD AT AUCTIONS
PROPORTION OF TOTAL IN EACH QUALITY
TASMANIA - AUSTRALIA COMPARISON
1970-71

(Source: Australian Wool Commission)

3



The Cost-Price Squeeze

As in other parts of Australia the Tasmanian sheep industry was under considerable financial pressure throughout the greater part of the 1960s. Costs had been steadily rising and wool prices began a downward drift after 1963-64 (see Diagram 4). Wool prices during 1970-71 fell to their lowest levels since 1946-47 and were accompanied by similar movement in sheep prices. From the following table it can be seen that the real deterioration in the industry's 'terms of trade' (indicated in the next table by the column headed 'Ratio (1)/(2)') began to set in during 1965-66. However, in 1971-72 there was an improvement from the 1970-71 situation; this was brought about largely by intervention at wool auctions by the Australian Wool Commission.

Ratio of Indexes of Prices Received and Paid by Woolgrowers in Australia
(Base: Average 1960-61 to 1962-63 = 100)
(Source: Bureau of Agricultural Economics)

Year	Index of Prices Received (1)	Index of Prices Paid (2)	Ratio (1)/(2)	Year	Index of Prices Received (1)	Index of Prices Paid (2)	Ratio (1)/(2)
			per cent				per cent
1960-61	95	99	96	1966-67 ..	104	114	91
1961-62	98	100	98	1967-68 ..	91	118	77
1962-63	107	101	106	1968-69 ..	98	120	82
1963-64	125	101	124	1969-70 ..	83	121	69
1964-65	105	105	100	1970-71 ..	65	126	52
1965-66	108	109	99	1971-72 ..	82	133	62

Many sheep producers were able to mitigate the effect of the cost-price squeeze on incomes by investing in pasture improvement and thereby increasing production per acre for a time. However, continued low prices in the late 1960s led to the situation where further pasture improvement was uneconomic and many sheep farmers could not afford the associated costs.

Beef prices have continued to increase since 1964-65 and many sheep producers have diversified into beef production. This farm enterprise change is still continuing. Livestock statistics at 31 March 1973 show that meat cattle numbers rose by 11 per cent over the 1972 figures and that total sheep numbers declined by nine per cent.

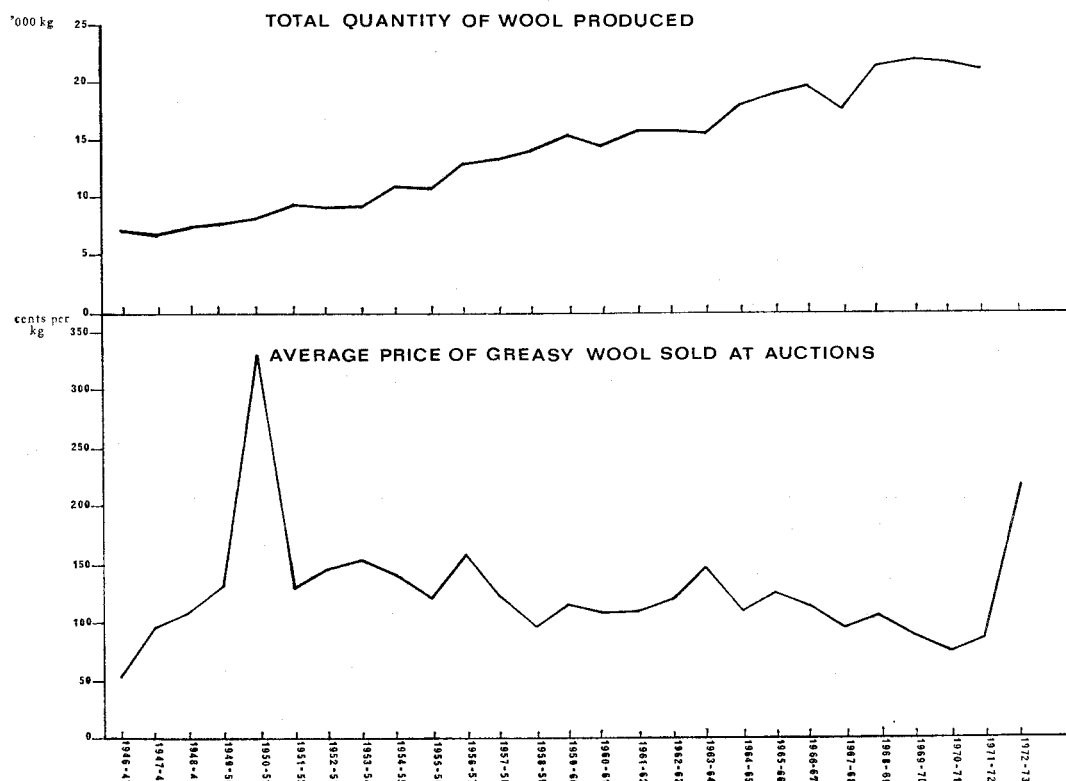
Tasmanian Sheep Industry: Proportion of Sheep Farms by Type of Principal Activity
(Source: Bureau of Agricultural Economics)
(Per Cent)

Farm Type	Proportion of Sheep Farms by Principal Activity		
	1959-60	1964-65	1969-70
Sheep Only	58	29	20
Sheep and Cattle	4	11	21
Mixed Farming	38	60	59
Total	100	100	100

The preceding table shows that since 1959-60 there has been a very substantial fall in the number of sheep only properties and a rise in the number of sheep-cattle properties. The increase in beef cattle numbers has not been entirely at the expense of sheep numbers; many producers have found that grazing beef cattle can be complementary to sheep growing and that greater income may accrue from cattle and sheep in conjunction than from concentrating entirely on the one activity.

Prices for wool fell so low in 1969-70 that the Commonwealth Government granted emergency financial assistance to sheep farmers. Total assistance was limited to \$30 million with a maximum individual payment of \$1,500. In November 1970 the Australian Wool Commission was established to operate a reserve price scheme for wool. The Commission was empowered to purchase, hold or dispose of wool through the marketing system. Throughout 1971 it followed a policy of maintaining a fixed average reserve price at auctions of approximately 66 cents per kilo (30 cents per lb) which necessitated active support buying, at times rising to approximately 25 per cent of auction offerings. Auction demand for raw wool increased strongly throughout 1972 and was reflected in steadily increasing prices. This enabled the Commission to wind down its buying operations and dispose of accumulated stocks.

WOOL PRODUCTION, TASMANIA



During 1970-71 further assistance was given to the sheep industry in the form of an income deficiency scheme for the financial year 1971-72. This scheme, operated by the Australian Wool Commission, used a notional price schedule which was calculated to yield an average price for wool as close as possible to 79.37 cents per kilo (i.e. 36 cents per lb) greasy. Certain inferior wools, making up about 10 per cent of the clip, were excluded from the scheme. A deficiency percentage rate was calculated each week and was applied to the gross value of eligible wool sold by a producer in that week to determine his deficiency payment. Approximately \$1.3 million was paid to Tasmanian sheep farmers under this scheme in 1971-72. Although initially this scheme was devised to operate for only one year it was later extended to 1972-73. However, during this latter year prices rose quickly to above the support price level.

To relieve growing unemployment and poverty in rural areas the Commonwealth, in 1971-72, commenced Grants for unemployment relief. Finance was made available to government departments and local government authorities to provide employment creating activities in non-metropolitan areas for unemployed farm workers and farm operators seeking additional income through off-farm work. For 1971-72, \$958,400 and \$729,250 was paid to local government authorities and various government departments, respectively, under this scheme. These amounts, of course, had a wider distribution than to just those affected by the recession in the sheep industry.

Financial Aspects of the Industry

Capital Structure

The assessed capital value of the average sheep property in Tasmania was estimated to be \$58,394 at 1 July 1960 and by 1970 to have more than doubled to \$122,897 per property. Details of capital structure are given in the following table:

Tasmanian Sheep Industry: Capital Structure at 1 July
(Source: Bureau of Agricultural Economics)

Item	Proportion of Total Capital Value		Item	Proportion of Total Capital Value	
	1960	1970		1960	1970
Land and Improvements—			Other—		
Land	54.0	56.4	Plant	11.5	10.7
Water Supply ..	2.2	2.3	Sheep	12.1	7.8
Fencing	7.4	5.0	Cattle	3.6	7.2
Buildings	9.1	10.5	Other Stock ..	0.1	0.1
Total Land and Improvements	72.7	74.2	Total ..	100.0	100.0

Land represents more than half the total capital value. The most noteworthy change during the decade is the doubling of the proportion of capital invested in cattle at the expense of sheep. Compared with the mainland States, a high proportion of total capital is provided for buildings and fodder reserves. The same applies for plant, emphasising the importance of cropping, particularly in the provision of winter forage.

Sheep Farm Returns and Costs

Data relating to components of returns reveal marked changes in activities as sheep producers have diversified.

Tasmanian Sheep Industry: Farm Return Components
(Source: Bureau of Agricultural Economics)

Farm Return Component	Proportion of Total Return (a)	
	1959-60	1969-70
Wool and Skins	57.6	37.2
Sheep Trading	18.2	16.0
Total Sheep	75.8	53.2
Crops and Hay	6.0	17.8
Cattle Trading	8.7	19.8
Other	9.5	9.2
Total	100.0	100.0

(a) Average total returns were: 1959-60, \$9,752 and 1969-70, \$20,120.

Average costs per farm for the years 1959-60 and 1969-70 are detailed in the following table:

Tasmanian Sheep Industry: Components of Farm Costs (a)

(Source: Bureau of Agricultural Economics)

Cost	Proportion of Total Cost		Cost	Proportion of Total Cost	
	1959-60	1969-70		1959-60	1969-70
	per cent	per cent		per cent	per cent
Labour—			Services—		
Wages	24.4	16.9	Freight Cartage ..	2.9	1.7
Contracts	1.9	2.7	Marketing—Wool ..	3.5	3.8
Shearing, Crutching ..	6.1	6.9	Stock ..	2.8	3.3
Stores, Rations ..	0.8	0.6	Rates, Taxes ..	3.2	3.8
Total Labour ..	33.2	27.1	Insurance ..	1.9	2.3
Materials—			Droving, Agistment ..	..	0.1
Fuel	6.0	5.0	Miscellaneous ..	3.7	4.3
Fertiliser	9.5	12.1	Total Services	18.0	19.3
Seed	3.8	3.6	Rent	1.2	1.1
Fodder	1.8	0.8	Depreciation ..	14.5	15.9
Packs, Bags, Twine ..	1.5	1.8	Total	100.0	100.0
Drenches, Dips, Licks	1.6	2.9			
Vermin Destruction ..	0.8	0.5			
Maintenance—					
Plant	5.0	6.4			
Improvements ..	3.1	3.5			
Total Materials	33.1	36.6			

(a) Total costs for 1959-60 were \$7,336 and for 1969-70, \$14,537.

During the decade, expenditure on labour dropped considerably indicating much more efficient use of farm workers. The increased productivity from labour helped offset the increased award wages during the period. The rise in the proportion of expenditure on materials is mostly due to increased purchases of fertiliser (in fact purchase of fertiliser reached a peak in 1966-67 and declined in each subsequent year to 1971-72) which helped lift carrying capacity. Expenditure on most services increased, particularly marketing. In Tasmania, where most sheep properties are held freehold, rent charges form a very small proportion of total cost which is in marked contrast to mainland States. Some of the larger Tasmanian holdings lease additional acreage from the Crown for 'run' country.

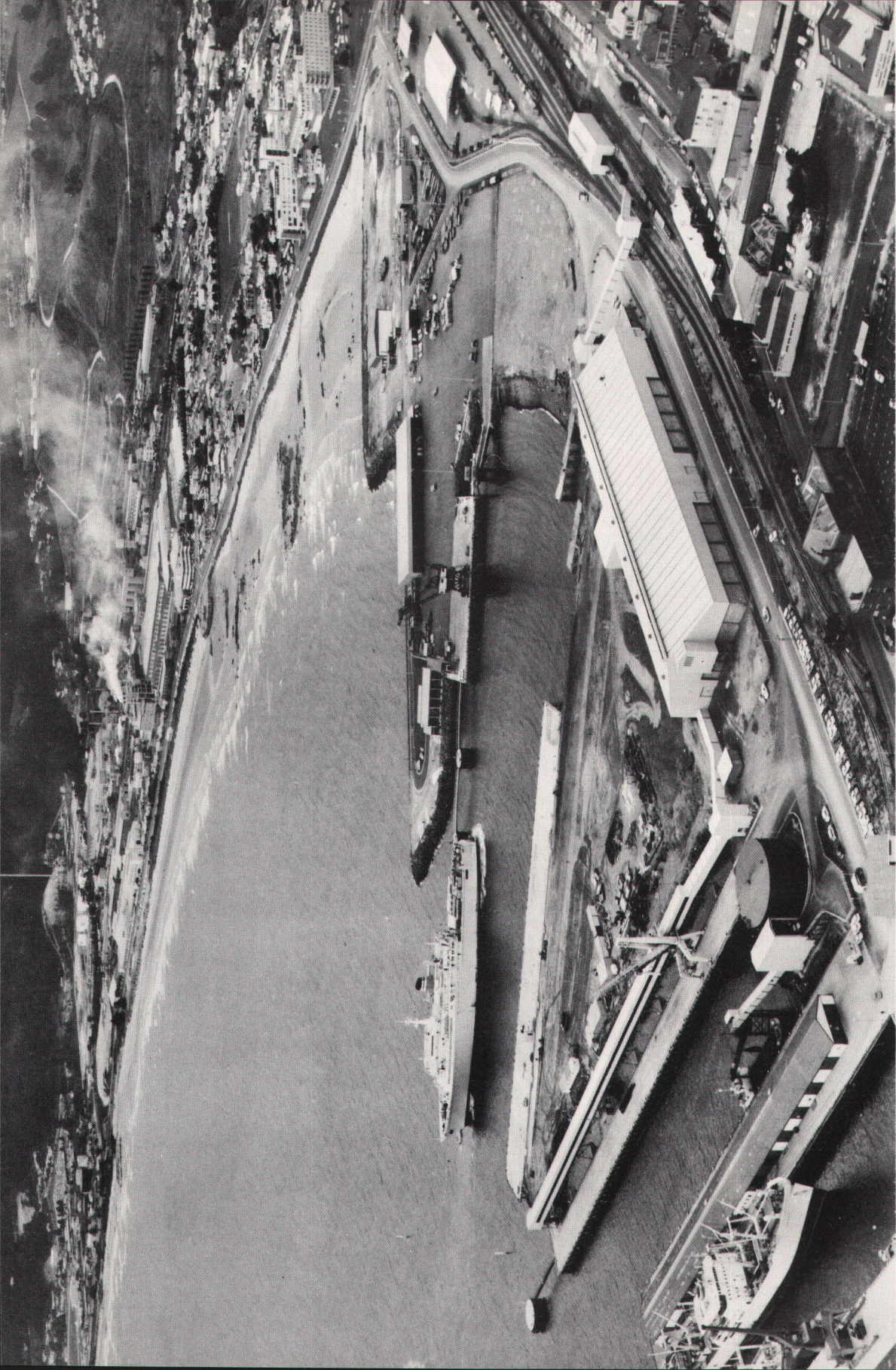
The difference between returns and costs is known as net farm income. It is the return to the farm operator for his labour, managerial skill and capital investment. The average net farm income rose from \$2,416 in 1959-60 to \$5,584 in 1969-70, a rise of 131 per cent. During the same period average weekly earnings per employed male unit in Tasmania rose by 69 per cent. The rate of increase in the net income of the average sheep farmer in Tasmania thus kept ahead of the rate of increase in average weekly earnings.

The distribution of net farm income (depicted graphically in Diagram 5) shows some interesting changes over the decade. The proportion of farms showing a financial loss dropped sharply. This is in part due to a number of small farms moving out of sheep production. As there has been a general rise in income throughout the community it is to be expected that the distribution of sheep-farmer incomes would shift to the right on the graph. However, the shift has been in excess of the general income increase and this has taken place during a period of cost-price squeeze on sheep products. That sheep-farmers have been able to increase income can be attributed to increased productivity within the sheep enterprise, due to more efficient labour use, increased carrying capacity and diversification into beef and cropping.



Guglielmo Marconi berthing at Hobart

[Dept of Film Production]



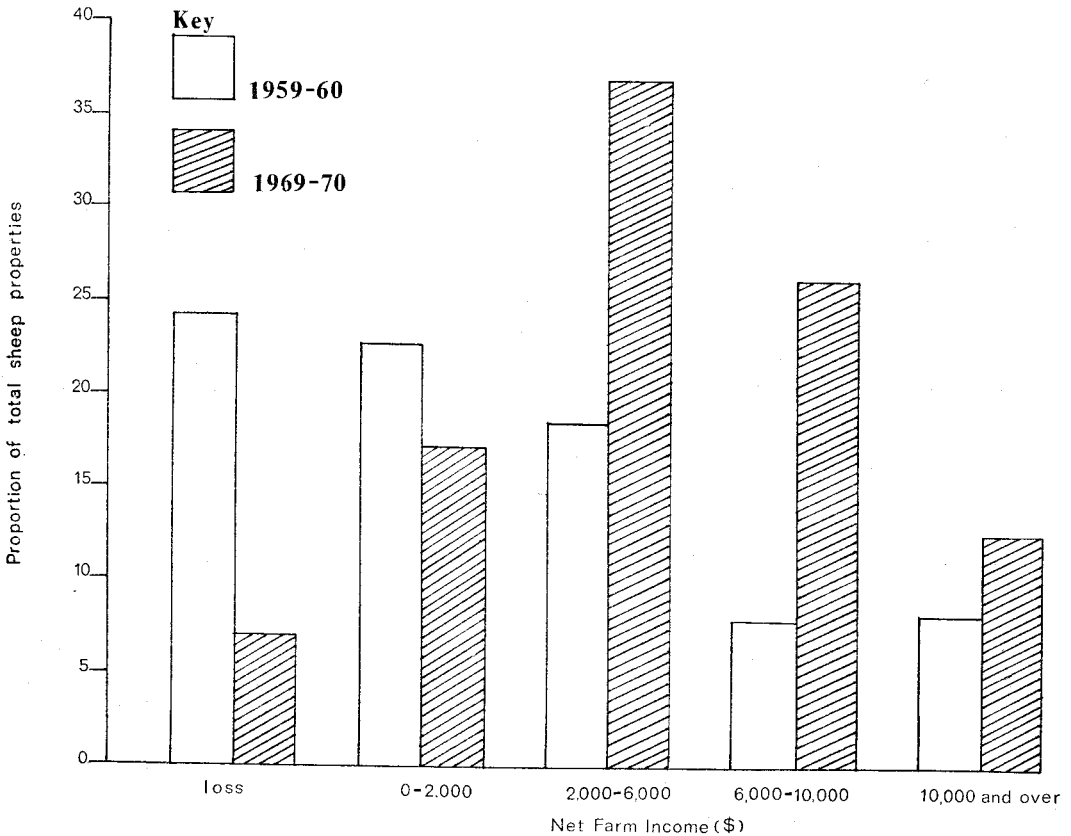
Port of Burnie, Bass Trader berthing

[Dept of Film Production]

5

PROPORTION OF TOTAL SHEEP PROPERTIES BY NET FARM INCOME 1959-60 AND 1969-70

(Source: Bureau of Agricultural Economics)



However, the real crisis in the cost-price squeeze arrived in 1970-71 when sheep-farm income declined by approximately 26 per cent over the previous year. The year 1971-72 was also another year of very low prices with costs of farm inputs rising a further seven per cent so that average income for this year also declined. During these two years sheep-farmers reacted to the slump by cutting back on purchased materials, particularly fertilisers, refraining from expenditure on equipment and laying-off farm workers. With the rapid price improvement in 1972-73 farmers moved quickly to rectify the deferred expenditure on these farm inputs.

Effects of Cost-Price Squeeze

Sustained pressure from a cost-price squeeze eventually exhausts economically feasible opportunities to increase productivity by intensification and diversification, and when this happens in an industry structural change has to take place. The decline by 19.3 per cent in the number of holdings with sheep between 1965-66 and 1971-72 indicates that structural change has been taking place. Prices received in 1972-73 for wool, lamb and mutton reversed their downward trend and reached their highest levels for some years. This has currently alleviated pressure for structural changes in the sheep industry but a potential problem still remains

below the surface. Surveys have shown that there exists a sizeable proportion of sheep properties with low income. A fall in sheep product prices in future years would resurrect the need for these low-income properties to be built up into larger units or to change to more intensive forms of farm activities.

Results of the surveys show a marked tendency for the more successful properties to be larger in terms of both property area and stock carried. These larger properties have lower costs and higher returns per sheep. Small farms usually are overcapitalised in relation to their output which has frequently been restricted by insufficient surplus funds to invest in pasture improvement. The general tendency is for small farms to have a higher capital value per acre than comparable type large farms because competition in the market for small farms is normally greater than for larger and more costly farms.

The recent price recession forced the sheep industry to seek cost savings in the marketing of wool and these endeavours are continuing. A significant reduction in overseas freight charges has been achieved and considerable progress made towards acceptance of objective measurement and sale by sample. Benefits which may accrue from this marketing innovation include the opportunity to use new classification standards that would result in larger sale lots and cost savings in clip preparation, more efficient use of wool during processing and a reduction in buying risks. With valuations based on measured fibre properties, wool could be sold by sample making it unnecessary to assemble the wool at the selling site.

Since the 1950s considerable efficiency in the use of labour has been achieved. However, it is now evident that even lower labour commitments are needed with future price prospects and likely increases in wage rates. Survey results show there is wide dispersion in the number of sheep cared for per labour unit with up to 6,000 sheep per man being attained. Research studies aimed at identifying the farm practices which allow a high labour efficiency are in progress. These investigations may eventually provide information which will permit all sheep-farmers to increase the intensity of labour use with subsequent cost reductions.

Industry Outlook

In mid-1973 the market prospects for sheep products appeared favourable. Mutton had become accepted as a manufacturing meat in a number of countries, notably Japan. The outlook for lamb appeared sounder than it had been for many years. To the Australian consumer, lamb is an acceptable substitute for beef and the rising price for beef had resulted in increased consumption of lamb. While the short term prospects for wool were good this outlook for the long term was still uncertain; few people in the industry expected prices to be sustained at the high levels reached during the 1972-73 season. However, if the demand for wool is linked to the world swing in consumer preference for natural products as opposed to synthetics then a reasonable expectation would be that the price for wool should be maintained at a level above that of the depressed level of 1970.

With the return of prosperous conditions it is likely that the trends of the last decade will change. The nature and extent of the change will depend not only on continuation of good prices for sheep products but also on the relative movement in prices for other farm products, particularly meat cattle. If there continues an advantage in favour of sheep then diversification out of sheep production may halt and sheep numbers, and consequently wool production, may once again show an upward trend.

Chapter 8

PRIMARY INDUSTRY—NON-RURAL

FORESTRY

Introduction

When the first explorers ventured beyond the main coastal areas of mainland Australia, they encountered arid zones and desert nearly devoid of timber. By contrast, in Tasmania dense and continuous forest was the main barrier to early penetration, although the early settlements were sited in open savanna-like country which originated from firing by the Tasmanian natives. No other Australian State has similar widespread conditions favourable for forest growth: a cool temperate climate; an assured annual rainfall varying from 500 to 3,800 millimetres according to locality, and showing relatively small seasonal variation.

In the 170 years since the first settlement, land clearing, timber exploitation and fires have left their mark; the Forestry Commission estimated the total forest area at 30 June 1972 as 3,158,000 hectares (i.e. about 46 per cent of the State's total area). By Australian standards, however, a State with 46 per cent of its area under forest is uniquely endowed.

Trees of the Tasmanian Forests

Forest Types

There are two basic types of forest in Tasmania; temperate rain forest and eucalypt forest. The rain forest is principally located in the western half and to a lesser extent in the north-east highlands; the eucalypt forest predominates elsewhere. The rain forest is characterised by the dominance of *Nothofagus cunninghamii* (myrtle) *Atherosperma moschatum* (sassafras) *Encyphia lucida* (leatherwood) and other trees which appear on poorer soils. *Acacia melanoxylon* (blackwood) grows where rain forest has been disturbed in the past; principally where fires have occurred.

The distribution of rain forest and eucalypt forest is influenced mainly by rainfall, soil type and the frequency of past fires. Eucalypt forests of good quality are not common on soils of reasonable depth and fertility where the annual rainfall is below 760mm. Where the rainfall is above 1,130mm, rain forest species appear in the understorey but are excluded should fires occur say every 40 to 50 years. With rainfall above 1,520mm rain forest can exclude eucalypts. However, even with rainfall well above 1,520mm a combination of poor soils and frequent burning produces areas of button grass and heathy plains.

Hardwoods and Softwoods

The most valuable eucalypts are those which belong to the so-called ash group—*E. obliqua* (stringy-bark) *E. delegatensis* (gum-top stringy-bark or alpine ash) and *E. regnans* (swamp gum or mountain ash). In the south and south-east *E. globulus* (Tasmanian blue gum) occurs in high quality forests. In areas where the annual rainfall is below 760mm, the more important eucalypts are *E. amygdalina* (black peppermint) *E. ovata* (swamp or black gum) *E. viminalis* (white gum) *E. obliqua* (Stringy-bark) and *E. linearis* (white peppermint).

Tasmanian forests are cut almost exclusively for hardwood (eucalypts), the slow growing native softwoods never having been very plentiful. The principal softwood species which have been utilised are *Athrotaxis selaginoides* (king billy pine) *Dacrydium franklinii* (huon pine) and *Phyllocladus aspleniifolius* (celery-top pine).

Tasmania offers 11 tree types suitable for chipping, of which 10 are eucalypts. The eleventh is the myrtle (*Nothofagus cunninghamii*), a rainforest hardwood available in the north-west of the island. The eucalypts can be graded into:

- (i) First quality (four species)—*E. obliqua* (stringy-bark) (a) (b)
E. delegatensis (gum-top stringy-bark) (a) (b)
E. regnans (swamp gum) (b)
E. sieberi (ironbark)
- (ii) Second quality (three 'gums')—*E. viminalis* (white gum) (a) (b)
E. globulus (blue gum) (a)
E. ovata (swamp or black gum) (b)
- (iii) Third quality (three 'peppermints')—*E. amygdalina* (black peppermint) (a) (b)
E. linearis (white peppermint)
E. tasmanica (silver peppermint)

Two species of eucalypt—*E. delegatensis* and *E. obliqua* account for over 60 per cent of all eucalypt logs cut for woodchipping. The east coast offers all 10 varieties of which the five marked (a) are the common ones. The north coast offers in useful quantity only the six varieties marked (b).

The scarcity of native softwoods is being met, in part, by the creation of exotic plantations, the principal tree grown being *Pinus radiata*, but at 30 June 1972 the softwood plantations (27,235 hectares) accounted for only 0.9 per cent of the State's total forested area. The following table shows the area of softwood and hardwood plantations established by the Forestry Commission (but excludes privately-owned areas):

**Area of Forestry Commission Plantations at 30 June
(Hectares)**

District	1971			1972		
	Softwoods	Hardwoods	Total	Softwoods	Hardwoods	Total
Smithton		9	9		9	9
Burnie	2,136	3	2,139	2,256	3	2,259
Devonport	2,780	332	3,112	3,146	332	3,479
Launceston	498	1	499	561	1	562
Scottsdale	5,457	2	5,458	5,824	2	5,826
Fingal	6,193	..	6,193	6,942	..	6,942
Dover	86	..	86	86	..	86
Western	335	..	335	575	..	575
Total	17,486	347	17,833	19,391	347	19,738

The Forestry Commission intends to plant 1,862 hectares of softwoods during 1973-74. The intended distribution of plantings by districts is (in hectares): Fingal, 728; Devonport, 364; Scottsdale, 364; Western, 243; Burnie, 121; and Launceston, 40.

Demand for Forestry Products

Timber was always in demand as a fuel and as a building and construction material from the days of the original settlement. The possibility of using eucalypts for paper manufacture was investigated in the nineteenth century by Sir Ferdinand von Mueller, the celebrated botanist, and he concluded that eucalypts provided a bark which was suitable for the manufacture of paper. In actual fact, when paper-making began at Burnie in 1939, the process involved discarding the bark and converting de-barked billets to pulp. In 1941 the only newsprint mill in Australia was established at Boyer on the Derwent; more recently, in 1962, a pulp mill began operations at Port Huon in the south. A further pulp and paper mill commenced production during 1970 at Wesley Vale near Devonport.

Further utilisation of forestry products has been introduced by factories producing plywood, hardboard, particle board, woodchips (for export), etc.

Forest Area

In the next table, which shows details of Tasmania's total forest area, a distinction is made between *exploitable* and *potentially exploitable* forest. Potentially exploitable forest is too immature to warrant exploitation at present, or is forest of higher quality where transport costs to the nearest market are prohibitive in present circumstances.

Obviously the distinction will change from time to time; for example the establishment of the wood pulp industry at Port Huon created a local market near forest areas once classed as only *potentially* exploitable, and created a demand for trees of lower grade than those used in sawmilling. Similarly the development of a woodchipping industry at Triabunna opened areas of forest on the east coast which previously had been sub-economic.

Classification of Forest Area (Gross) at 30 June 1972 (a)
(’000 Hectares)

Forest Area	Located on—		Total
	Crown Land	Private Land	
Exploitable—Hardwood	1,239	573	1,812
Softwood	4	2	5
Total	1,243	575	1,817
Potentially Exploitable—Hardwood	512	101	613
Softwood	16	6	22
Total	527	107	635
Other Areas Classified as Forest	660	47	706
Estimated Total Forest Area	2,430	728	3,158

(a) Includes 27,235 hectares of softwood plantations and 384 hectares of hardwood plantations at 30 June 1972.

The previous table includes all forests and plantations, whether easily accessible or not, and also the forested areas of State reserves (i.e. national parks, etc.). The next table gives details of that part of the total area which is under reservation ('reservation' in this context means land either used or to be used exclusively for forestry purposes; it includes also the forested areas of scenic reserves):

Forest Area (Gross) Under Reservation at 30 June 1972
(’000 Hectares)

Particulars	Pulpwood Concessions	Exclusive Forest Permits	Scenic Reserves (a)	Other	Total
State Forests (b)	875	23	..	251	1,148
Timber Reserves (c)	65	..	..	28	93
Other Forested Reserves	799	42	179	2	1,022
Total	1,739	65	179	281	2,263

(a) Estimated forested component of State reserves (national parks, etc.).

(b) Land permanently dedicated to timber production.

(c) Land reserved for timber supply, including fuel.

The State Forests are located, in the main, in five distinct regions: (i) far north-west about the axis of the Arthur River; (ii) north-eastern highlands; (iii) north and north-west of the Great Lake; (iv) from the south coast, north to Lake King William, and (v) the east coast area.

Classification of State Forests

The classification by the Forestry Commission, of the State Forests, is a continuous process and a large section still remains unclassified. The position, according to latest figures available, is as follows:

Classification of State Forests at 30 June 1972
(⁰⁰⁰ Hectares)

Particulars	Area	
Commercial Forest—		
Eucalypt (sawlog quality)	230	
Eucalypt (pulpwood and firewood)	114	
Regrowth (immature forest)	87	
Rain Forest (myrtle, sassafras, etc.)	98	
Cleared Land (deforested areas)	27	
Total Productive Forest		556
Protection Forest—		
Scrubland and Plains	147	
Barren and Waste	107	
Total Unproductive Forest		254
Total Classified Forest		810
Total Unclassified Forest		338
Total State Forest		(a) 1,148

(a) Area proclaimed at 30 June 1972: 1,085,247 hectares; additional area disclosed by map revisions: 62,614 hectares.

Forest Utilisation

Introduction

Numerous timber-using industries have been established in Tasmania including sawmills and industrial plants producing newsprint, paper, paper pulp, particle board and woodchips. Establishment of the woodchip industry and the expansion of other timber-using industries has resulted in greatly increased annual timber requirements necessitating careful utilisation of existing forest resources and the development of viable reforestation schemes.

The problem of possible overtaking of existing resources has been met partly by multiple use which, in effect, means the same logs supply the raw material for a number of purposes. Pulpwood is often obtained as a by-product from mill-logging operations while waste from sawmilling is used for the manufacture of woodchips, pulp and hardboard. Thinnings from Forestry Commission *Pinus radiata* plantations, which in the past were often discarded, are used in particle board manufacture.

Regeneration is carried out by the Forestry Commission and by the companies themselves. On Crown land reforestation is mandatory, the work in some areas being done by the companies and in other areas by the Forestry Commission. Industries utilising privately owned forest resources have established incentive schemes to encourage reforestation.

In the sections that follow some of the more significant details are given for the State's major timber-using industries, excluding sawmills.

Paper, Hardboard and Particle Board

Associated Pulp and Paper Mills Ltd and subsidiaries manufacture paper and hardboard at Burnie and particle board and paper at Wesley Vale. The company owns 101,172 hectares of forested land and holds cutting rights over Crown land for 24 kilometres on each side of the Emu Bay railway line from the north coast to the Pieman River.

In 1970 the company completed the first stage of its pulp and paper mill at Wesley Vale at a cost of \$25m. The first paper machine installed has an annual capacity of about 40,640 tonnes of magazine paper and provision has been made for the installation of three additional machines. Two small pulping units manufacture eucalypt cold soda semi-chemical pulp and *Pinus radiata* refiner-groundwood. A.P.P.M. Ltd plans to establish a large chemical pulp mill at Wesley Vale by 1978 which will duplicate present production from the Burnie complex.

Newsprint

Australian Newsprint Mills Ltd, situated at Boyer on the Derwent River, is Australia's sole manufacturer of newsprint. Its timber concession follows the general line of the Derwent as far north as Lake King William.

The *Florentine Valley Paper Act* 1966 increased A.N.M.'s concession area from 110,479 hectares to 150,948 hectares to provide the basis for an expansion programme. The company is required by the Act to supply 10 million super feet of logs to other timber-using industries each year. A third paper machine came into production in January 1969 increasing annual capacity to 168,000 tonnes of newsprint. Output on this machine was progressively speeded-up and further ancillary equipment introduced to raise annual capacity to approximately 208,000 tonnes.

Wood Pulp

Australian Paper Manufacturers Ltd manufacture wood pulp at Port Huon on the Huon River. The pulp is shipped in pellet form to the company's paper mills in other States, principally to Botany, N.S.W.

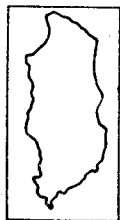
The company's pulpwood concession includes virtually the whole of the D'Entrecasteaux Channel coastline and the south coast as far west as Prion Bay; inland it extends west to the Mt Picton area. Also included in the concession are Bruny Island and the Tasman Peninsula.

Woodchips

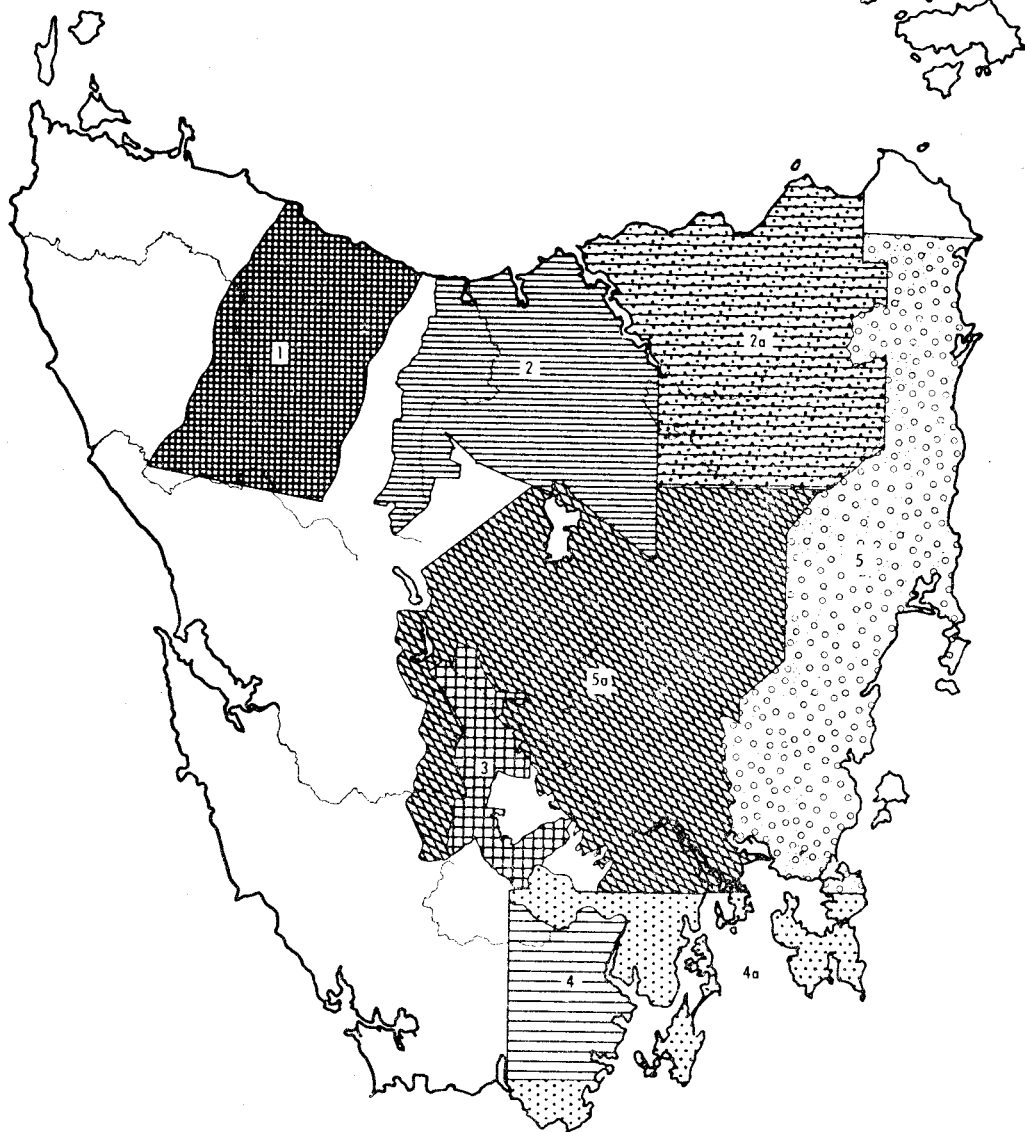
Woodchips, manufactured from sawmill waste and other timber previously of limited commercial value, are primarily used for wood pulp production. Three Tasmanian companies, Northern Woodchips Pty Ltd, Tasmanian Pulp and Forest Holdings Ltd and Associated Pulp and Paper Mills Ltd have negotiated woodchip export contracts with Japanese interests. Before granting woodchip export licences, the Commonwealth Government stipulated that the companies, if they did not already have the capacity, should develop wood pulp manufacturing facilities within 15 years.

Tasmanian Pulp and Forest Holdings Ltd's plant at Spring Bay, near Triabunna on the east coast, has an annual capacity of more than 610,000 tonnes of woodchips. Timber for the project comes from pulpwood concession areas extending along the Eastern Tiers from St Helens (177 kilometres north of Triabunna) to Buckland (24 kilometres to the south-west). The Company has also been granted concessions over reserve areas covering much of central Tasmania. These areas will ultimately be used provided Tasmanian Pulp and Forest Holdings Ltd meets various stipulations contained in the *Pulpwood Products Industry (Eastern and Central Tasmania) Act* 1968. In addition the company is permitted to obtain pulpwood from areas in the reserve set aside by the Forestry Commission for silvicultural purposes or by utilising trees removed to open the forest for economic extraction of milling-quality timber.

The company's first woodchips were exported from the Spring Bay complex in April 1971; by December 1971 the plant was operating at full capacity (610,000 tonnes of woodchips per annum).



TIMBER CONCESSION AREAS



A.P.P.M.: (1) Burnie Concession Area; (2) Wesley Vale Concession Area; (2a) Wesley Vale Reserve.

A.N.M.: (3) Concession Area.

A.P.M.: (4) Concession Area; (4a) Reserve.

T.P.F.H.: (5) Concession Area; (5a) Reserve.

Associated Pulp and Paper Mills Ltd and Northern Woodchips Pty Ltd constructed their woodchip plants at Long Reach, near Bell Bay, on the Tamar River. Northern Woodchips Pty Ltd has also installed portable and satellite chipping plants in the northern half of Tasmania. A.P.P.M. Ltd draws its timber supplies from Crown forest concessions, private land and sawmill waste while Northern Woodchips Pty Ltd relies on timber from private lands and sawmill waste. Annual capacity of the A.P.P.M. Ltd plant is 914,500 tonnes of woodchips; Northern Woodchips Pty Ltd's 15-year export contract is for an annual 711,000 tonnes of woodchips.

Both companies commenced production of woodchips in 1972; A.P.P.M. at its Long Reach plant in May 1972 and Northern Woodchips from its portable and satellite chipping plants in mid-1972. First exports by the two companies were made in late 1972. In February 1973 the first log trains commenced using the rail extension to Long Reach giving the two companies economic access to more distant timber supplies.

By July 1973 there were 26 operative chipping sites in Tasmania and a mobile chipper which is used wherever the volume of sawmill off-cuts or transport costs warrant its operation.

Timber Concession and Reserve Areas

The establishment in Tasmania of various industries using forest resources has given rise to the need for some guarantee of assured timber supplies to those industries. Therefore certain concessions and cutting rights on Crown lands have been awarded to companies relying on forest products as their raw materials. The preceding map shows the location of concession and reserve areas in Tasmania. Concession areas are those areas where a company is at present allowed to operate while reserve areas are set aside for future use. Providing that the company meets certain stipulated conditions, permission to remove timber from the reserve area will be granted by the Forestry Commission.

Definition of Forest Production

The cutting of logs in a forest and the production of sawn timber in a mill seem closely related activities and may both, in fact, be conducted by a single operator with the same team of employees; similarly, the cutting of pulpwood and its later conversion to newsprint or fine paper may be viewed, in a broad sense, as a single activity. For statistical purposes, however, sawmills, paper mills, newsprint mills, woodchip plants, etc. are classified as factories while logging operations, which provide the raw materials for the factories, are classified as forestry activity. It necessarily follows that the definition of forest production must be restricted to include only the output of logs, hewn timber, firewood, tanning bark, etc. before such products have passed into the sector covered by factory statistics. Some forestry products, as just defined, (e.g. fence posts and rails, hewn sleepers, firewood, etc.) may go direct to the final consumer without passing as a raw material to the factory sector.

Measurement of Volume (Metrication)

In previous issues of the Year Book, log input and sawn output have been expressed in true super feet. In this issue, true super feet have been replaced by cubic metres, shown in tables as m³. The conversion factor used is 423.776 true super feet equal one cubic metre (m³).

Value of Forest Production

Gross Value of Production is the value placed on the recorded production at the wholesale price realised in the principal markets. In cases where forestry products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets (e.g. the value of logs cut for saw-milling is the value on the mill skids).

Local Value (i.e. value of recorded production at the place of production) is ascertained by deducting marketing costs from gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.

In other production sectors, local value of production is further reduced by subtracting the value of materials used in the process of production; the final figure is *net value of production*. In the forestry sector, however, these data on the cost of materials are not available and therefore the only two measures available are: (i) gross value of production; and (ii) local value of production.

Duplication: Until 1968-69, the value of logging operations was included *only* in the forestry sector and excluded entirely from the manufacturing sector. The changed concept of the establishment, introduced in the 1968-69 manufacturing census, involves some logging activity being recorded in the operations of sawmills; in 1969-70, the value of such activity, double-counted (i.e. included in both manufacturing and forestry sectors), was \$1.6m.

Source of Production Data

The principal sources of data are the returns of the various establishments classified as factories (e.g. sawmills, newsprint mills, paper mills, plywood mills, etc.) which report details of logs, pulpwood, sawmill edgings, off-cuts, etc. used as raw materials; other data are available from the State Forestry Commission and the Bureau's export statistics.

Statistics of Forest Production

The next table shows the production of the various forest products and from where they are obtained, i.e. either Crown or private land. In this table, the 'Logs for Processing' figures include the log usage of the woodchip export industry. Woodchips have been an input material for locally based paper and wood pulp plants for many years but demand increased greatly with the establishment of woodchip export markets.

The following table shows details of forest production:

Forest Production, 1971-72

Product	Obtained from—		Total
	Crown Land	Private Land	
Logs for Processing (a)—			
Forest Hardwoods '000 m ³	1,435.40	749.29	2,184.68
Indigenous Softwoods '000 m ³	4.33	..	4.33
Plantation Grown Pines '000 m ³	33.44	23.50	56.97
Total Logs—Quantity '000 m ³	1,473.18	772.79	2,245.98
Gross Value \$'000	n.a.	n.a.	18,858
Hewn and Other Timber (not included above)—			
Firewood—Weight '000 tonnes	13	387	400
Gross Value \$'000	n.a.	n.a.	2,750
Other (Gross Value) (b) \$'000	n.a.	n.a.	319
Total Gross Value of Forest Products .. \$'000	n.a.	n.a.	21,927

(a) Logs for sawing, peeling, slicing, chipping and pulping.

(b) Includes sleepers, transoms, girders, bridge timbers, mining timber, poles, piles and other forest products such as tanning bark, etc.

The Forestry Commission expects that total annual usage of logs for processing, both from private and Crown land will reach a plateau of approximately 4 million cubic metres by 1975-76. The Crown component, about 65 per cent of total, is within the known sustained production capacity of these lands.

The next table shows details of forest production for a five-year period on a basis comparable with the previous analysis:

Forest Production

Product		1967-68	1968-69	1969-70	1970-71	1971-72
Logs for Processing (a)—						
Forest Hardwood ..	'000 m ³	1,611.8	1,653.7	1,752.4	1,763.0	2,184.7
Indigenous Softwood ..	'000 m ³	10.6	10.4	14.8	8.5	4.3
Plantation Grown Pines ..	'000 m ³	52.4	55.3	65.1	56.9	57.0
Total Logs—Quantity ..	'000 m ³	1,674.8	1,719.5	1,832.4	1,828.4	2,246.0
Gross Value ..	\$'000	13,024	13,456	15,859	14,037	18,858
Hewn and Other Timber (not included above)—						
Firewood—Weight ..	'000 tonnes	383	373	395	419	400
Gross Value ..	\$'000	2,191	2,426	2,835	2,783	2,750
Other (Gross Value) (b) ..	\$'000	273	132	204	263	319
Total Gross Value of Forest Products	\$'000	15,488	16,015	18,898	17,083	21,927

(a) Logs for sawing, peeling, slicing, chipping and pulping.

(b) Includes sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, tanning bark, etc.

Tasmanian and Australian Log Production

For the purposes of the last two tables, log production is defined as relating to 'logs' for sawing, peeling, slicing, chipping and pulping (i.e. it includes logs used in sawmills as well as those used for production of wood pulp in newsprint and paper mills, woodchips, particle board, etc.). In terms of this definition Tasmania is a major producer, the State's log production being over 18 per cent of the Australian total in 1970-71; the ranking of the major producers was Victoria with 25.9 per cent and N.S.W. with 22.2 per cent. Considering Tasmania's small relative size and population, it is apparent that forest production is one of its more important contributions to the Australian economy.

Gross and Local Value of Production

The following table gives details of gross and local values of forestry production for a five-year period:

Gross and Local Value of Forestry Production
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Gross Value (Production Valued at Principal Markets)	15,488	16,015	18,898	17,083	21,927
Less Marketing Costs	2,068	2,469	2,765	2,882	3,734
Local Value (Production Valued at Place of Production)	13,420	13,546	16,132	14,201	18,193

Timber and Timber Products

Mill Production of Timber

In 1971-72 logs treated in sawmills and plywood mills for the production of sawn, peeled, and sliced timber totalled 1,081,000 cubic metres; the resulting timber totalled 413,000 cubic metres.

The difference between the volume of logs treated and of timber produced is not all waste from the miller's points of view. Admittedly, there is very limited use for sawdust but some offcuts are sold to the wood pulp and, more recently, the woodchip industries and other waste is docked and sold as firewood.

Output and Exports

The following table shows timber production by mills for a five-year period, together with exports of sawn timber:

Production and Exports of Sawn Timber

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
LOGS TREATED ('000 m ³)					
Hardwood	1,055.25	1,073.60	1,049.84	1,027.74	1,054.60
Softwood	20.81	27.74	29.50	27.06	26.48
Total	1,076.06	1,101.34	1,079.33	1,054.80	1,081.09
SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS TREATED (a) ('000 m ³)					
Hardwood	405.81	404.01	400.70	394.34	401.23
Softwood	7.68	10.38	12.96	11.76	11.62
Total	413.48	414.39	413.65	406.10	412.85
EXPORTS OF SAWN TIMBER (b) ('000 m ³)					
Total	183.82	194.94	207.24	200.58	202.33
VALUE OF EXPORTS OF SAWN TIMBER (b) (\$'000)					
Total	13,492	15,329	16,238	17,201	17,385

(a) Rough sawn timber including that subsequently seasoned and dressed to produce flooring, weatherboards, etc.

(b) Includes dressed and undressed timber.

Geographical Distribution of Sawmills

The next table records the absolute decline in the number of mills over an eight-year period. The area with the heaviest incidence of closures has been in the southern orcharding areas.

Fruit case manufacturers, often part-time farmers or cartage contractors, could not compete with the cheaper and lighter fibre board packaging. Generally depressed prices for export fruit combined with the 1967 bush fires reinforced the speed of the collapse of case-making.

Distribution of Operative Sawmill and Plywood Mill Locations by Statistical Divisions and Sub-divisions

Statistical Divisions and Sub-divisions	1963-64	1965-66	1967-68	1969-70 (a)	1971-72
Hobart	143	123	107	96	12
Southern					
Northern—					
Tamar	62	66	64	53	61
North Eastern	41	42	43	36	29
Total	103	108	107	89	90
Mersey-Lyell—					
North Western	53	53	53	45	39
Western	8	7	8	8	8
Total	61	60	61	53	47
Tasmania	307	291	275	238	222

(a) In 1968-69 a change in definition excluded 12 planing mills which were exclusively engaged in re-sawing.

Average Size of Mills

In the Year 1963-64 no Tasmanian sawmill exceeded an annual log input of 25,000 cubic metres. The size distribution of mills, classified by volume of log inputs, is given in the next table:

Number of Operative Sawmills (including Plywood Mills) by Volume of Annual Log Input

Size Classification (Cubic Metres)	Number of Sawmills and Plywood Mills	
	1969-70	1971-72
Less than 500	44	52
501- 1,000	30	12
1,001- 1,500	13	17
1,501- 5,000	79	69
5,001-10,000	46	43
10,001-15,000	13	12
15,001-30,000	12	15
30,001-45,000 .. .. .	..	2
45,001-60,000	1	..
60,001 and Over .. .. .	..	..
Total	238	222

Chipping, Grinding and Flaking of Wood

Apart from sawmills and plywood mills, the main users of logs from Tasmanian forests were, until early 1971, the mills producing as their final products wood pulp, paper, hardboard and particle board. As an intermediate stage in the various processing systems, the timber used was chipped, ground or flaked at eight locations.

Since the commencement of woodchipping for export from the port of Triabunna in February 1971, details have been regularly obtained of *log usage*, and of *production of chipped, ground and flaked wood*, from all mills engaged in producing woodchips as such, wood pulp, paper, hardboard and particle board.

With the opening, in late 1972, of two additional woodchip export sites at Long Reach on the Tamar estuary, it has become possible to classify output into, woodchips, etc. for further local processing and those for export. In the month of May 1973, two thirds of total production was destined for Japanese mills.

The rapid development of woodchipping for export is shown in the following table:

Chipping, Grinding and Flaking of Wood

Particulars	1969-70	1970-71	1971-72	1972-73
Producing Locations number	8	12	18	27
Materials Used (a)—				
Logs '000 m ³	733.10	771.50	1,171.37	2,133.65
Sawmill Offcuts '000 m ³	96.14	125.47	139.09	223.27
Total '000 m ³	829.24	896.97	1,310.46	2,356.92
Chipped, Ground and Flaked Wood Produced (Green Weight)—				
For Local Processing tonnes	761,021	n.p.	n.p.	793,744
For Export tonnes	..	n.p.	n.p.	1,396,367
Total tonnes	761,021	828,605	1,213,172	2,190,111

(a) Data reported in green tons but converted to cubic metres by the use of the conversion factors: 320 super feet hoppus equals one ton, and 332.8 super feet hoppus equals one cubic metre.

The State Forestry Commission

The principal officers of the State Forestry Commission are the chief commissioner and two assistant commissioners. At 30 June 1972 the Commission employed a work force of 653, including administrative staff.

Total expenditure by the Commission during 1971-72 was \$4.5m. This expenditure was funded from Loan Funds and Consolidated Revenue. Money collected each year (mainly from timber royalties) is paid into Consolidated Revenue and, by law, becomes a grant to the Commission the following year.

The Forestry Commission is primarily concerned with the conservation of Tasmania's forests; this requires that it should exercise control over the rate at which logs and pulpwood are taken, and also that it should introduce effective measures to ensure regeneration. Other important functions include: (i) fire prevention and suppression; (ii) road construction to give access to forests; and (iii) development of plantations. Some concept of the scope of Forestry Commission activities can be obtained from the following table:

Activities of Forestry Commission: Summary
(Source: Forestry Commission)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Seedlings Produced '000	2,725	3,038	2,767	3,275	3,295
Plantations—					
Established hectares	1,900	1,761	1,878	2,027	1,905
Pruned hectares	792	804	726	839	754
Thinned hectares	348	413	414	353	302
Firebreaks—					
Constructed kilometres	95	138	127	53	85
Secondary Roads—					
Constructed kilometres	148	121	134	108	85
Improved kilometres	26	32	34	11	5
Major Roads—					
Constructed kilometres	39	50	37	34	47

The Commission has a responsibility for preventing and fighting forest fires; losses through bush fires fought by the Commission are reported in the following table:

Bush Fires Fought by the Forestry Commission
(Source: Forestry Commission)

Year	Fires Reported	Area Burnt				Cost of Suppression
		State Forest	Other Crown Land	Private Property (a)	Total (a)	
	no.	hectares	hectares	hectares	hectares	\$
1965-66	317	13,361	20,432	18,471	52,264	71,918
1966-67	264	33,975	78,905	59,605	172,485	108,018
1967-68	230	6,397	23,886	8,447	38,730	61,032
1968-69	87	1,432	2,450	652	4,535	18,722
1969-70	118	1,954	3,327	940	6,221	21,963
1970-71	114	5,987	1,575	1,101	8,663	22,493
1971-72	95	1,016	292	518	1,826	13,841

(a) Includes only those fires on private property fought to protect adjoining State Forest or timbered Crown Land.

The main revenue of the Forestry Commission is derived from royalties, i.e. charges paid by those taking timber from Crown lands. By law, such revenue is specifically reserved for expenditure on forestry. The next table has been compiled to show the revenue and expenditure of the Commission for the last five years; expenditure exceeds revenue since money from State loan funds devoted to forestry purposes is included in expenditure.

Forestry Commission: Revenue and Expenditure
(**\$'000**)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
REVENUE					
Royalties	1,492	1,496	1,537	1,690	1,969
Sale of Forest Products	101	75	89	93	123
Other	9	27	27	32	35
Total	1,603	1,598	1,653	1,815	2,127
EXPENDITURE (a)					
Administration—					
Revenue Collection	147	180	196	239	290
Forest Management	414	449	496	555	641
General	364	375	381	457	504
Forest Works—					
Road Construction	702	763	752	853	902
Building and Other	66	75	105	90	98
Afforestation and Reforestation	1,020	1,070	1,140	1,236	1,330
Forest Protection (n.e.i.)	119	122	134	134	138
Mapping and Surveys	80	92	102	118	126
Land Purchases	2	6	7	17	8
Purchases, Plant and Equipment	24	57	36	85	45
Interest on Advances	286	314	350	392	451
Total	3,226	3,503	3,699	4,176	4,533

(a) Aggregate expenditure from all sources, i.e. Consolidated Revenue, Loan and Trust Funds.

Commonwealth-State Agreement

The Federal *Softwoods Forestry Agreements Act* 1967 was passed with the specific intention of increasing the rate of softwood plantings in Australia by providing Commonwealth financial assistance to the States. Under the Act each State was allocated: (i) *a base year* area of softwood plantings which was financed by the State; and (ii) *a scheduled* area in excess of the base year figure, the excess financed by special Commonwealth loans. The base year area was constant for each year of the five-year programme which commenced in 1966-67.

Main features of the special Commonwealth loans were: (i) repayment of advances, in 50 half-yearly instalments, is deferred until July of the eleventh year after the date on which payment was made to the State; (ii) the State may repay any portion of the advances at any time prior to the date that payment falls due; and (iii) the loans are interest free for a period of 10 years after which interest accrues on the outstanding balance.

In late 1972 Federal legislation was passed which extended the Commonwealth-State softwood forestry agreement for a further five years. The legislation was made retrospective from July 1971. Financial terms were similar to those set out in the 1967 agreement.

Base year areas (financed by the States) under the second Commonwealth-State softwood forestry agreement are: N.S.W., 3,553 hectares; Vic., 2,635 hectares; Qld., 2,282 hectares; S.A., 1,376 hectares; W.A., 1,315 hectares; and Tas., 850 hectares. Tasmania's scheduled plantings for each of the five years ended 30 June from 1972 to 1976 was set at 1,862 hectares.

The Commonwealth aim is to establish 809,400 hectares of pine plantations in the next 40 years and Tasmania's target, as part of the plan, is 80,940 hectares.

MINING

Introduction

For statistical purposes, mining is taken to cover the operations normally thought of as mining and quarrying (i.e. the removal from underground or surface workings of ores, etc.), the recovery of minerals from ore dumps, tailings, etc. and ore dressing (i.e. concentration and other elementary treatment). It does not include the smelting and/or refining of metallic minerals or the processing of non-metallic minerals (e.g. limestone into cement); these operations are classified as manufacturing.

In the present Tasmanian economy, two important metals will serve to illustrate the distinction between mining and manufacturing: aluminium, produced at Bell Bay on the Tamar; and zinc at Risdon near Hobart. In terms of the previous definition, the two metals are considered to be the output of manufacturing and only a small part of their total value is attributable to the mining industry in Tasmania. In the case of aluminium, no Tasmanian ores or concentrates are used and no value accrues to the Tasmanian mining industry. A substantial part of the value of the aluminium is, in fact, accounted for by imported materials. Zinc is produced from both imported and locally-produced concentrate, but only the value of the local concentrates produced at Rosebery is included in the Tasmanian mining industry. The same principle applies with the State's iron-ore pellet industry, i.e. extraction of the ore is classified as mining but pellet-making is classified as manufacturing.

Historical

Supply and Demand

Tasmanian mining activity has been subject to frequent and severe fluctuations, mainly as a result of changes in supply and demand, which are reflected in the market prices of particular metals. Factors which have contributed to this instability are: (i) *supply*—market prices may fall with the discovery or working of major ore-bodies; (ii) *demand*—large-scale purchases of particular metals either to meet unforeseen contingencies or to stock-pile for future requirements may lead to rises in market prices; and (iii) *technological change*—the development of more economic recovery methods may lead to the working of previously unusable large scale deposits. Developments in industry may also lead to the setting-up of a new market or collapse of an established market in particular metals.

The effects of these and other factors have been offset to some degree by the establishment of controlling bodies such as the International Tin Council. In efforts to stabilise the markets such bodies may exercise control over prices or introduce production quotas.

Definition of Mining

Unfolding the record of the various minerals produced in the State is made difficult by the manner in which previous official mining statistics were compiled. In current statistics, a distinction has been made, in broad terms, between mining a mineral and subsequently refining it to obtain its metallic content—the second process is classified as manufacturing. However, this distinction was not made in earlier statistics and therefore historical comparisons cannot be made with any accuracy. A further difficulty occurs with regard to the value of ores which in older series were valued, in the main, according to the world price for their estimated metallic content, irrespective of whether the extraction was carried out in Tasmania, in other States or

in overseas countries. Thus the earlier historical value series is inflated and does not reflect the true earnings of mineral producers within the State. In the evolution of a proper basis for current mining statistics, the chief requirement was to satisfactorily define a border between mining and factory activities and, for Tasmanian data, this was not accomplished until 1952 when the Bureau of Census and Statistics conducted its first mining census. From 1952 to 1968, the Bureau held censuses covering operations in calendar years but a new annual series was introduced to cover 1968-69 operations and those of subsequent fiscal years. The new series is conducted as part of the round of Integrated Economic Censuses (see later section 'Census of Mining Establishments').

Because of the definitional difficulties just listed, the historical account of mining in the State has been deliberately restricted largely to details of physical production; other measures such as employment, value of output, wages and salaries paid, etc. are not comparable with those used in the series commencing 1952.

Coal

Early Fields

The site of Tasmania's first mine was on Tasman Peninsula where the convicts from Port Arthur mined 61 tonnes of coal in 1834; highest production was 10,570 tonnes in 1840 but, within three years, the work ceased due to the poor quality of the coal and discoveries at other sites. The island's principal coalfields were eventually opened up in the Fingal Valley. In 1885 State production was 6,761 tonnes; in 1886, 10,558 tonnes of which the Fingal area contributed 3,881 tonnes. In 1890 Fingal had reached a dominant position and in that year accounted for 45,667 tonnes of the 54,676 tonnes mined in Tasmania.

Decline in Production

By 1920 annual State production had reached 76,200 tonnes; by 1950 it exceeded 223,500 tonnes. The peak production year was 1959-60 with an output of over 304,000 tonnes but since then there has been a decline due to competition from oil. (The introduction of diesel locomotives contributed, in a minor degree, to the fall in demand but the major factor has been a change from coal to oil fuel in manufacturing industries.) Throughout the period, from 1886 till today, the mines of the Fingal Valley have been the State's principal source of coal. In 1967 Tasmanian annual production had fallen to 78,236 tonnes.

To alleviate hardship and unemployment brought about by the decline of the coal industry, the Forestry Commission developed exotic pine plantations in the Fingal Valley to provide gainful employment, while the use of coal fuel in industry has been officially encouraged. The chief consumer is Australian Newsprint Mills at Boyer and use of coal by this company contributed to a major increase in production. Coal output for 1971-72 was 121,316 tonnes.

By Australian standards, the State's black coal production has never been on a large scale and even in the year of peak Tasmanian production (1959-60) it represented only 1.5 per cent of the Australian total. N.S.W. contributed nearly 80 per cent of the total production of black coal. (This total excludes brown coal mined in very large quantities almost exclusively in Victoria.)

Gold

The first appearance of gold mining in *Statistics of Tasmania* dated from 1866 when crushing at Fingal in the north-east produced 9,837 grams from 2,918 tonnes of quartz. In actual fact, gold had been discovered much earlier in slate rocks near Lefroy in 1849 and then at Mangana near Fingal in 1852, the second find setting off a minor gold rush to the alluvial diggings.

During 1859 the first quartz mine started operations at Fingal. In the same year James Smith (better known as 'Philosopher' Smith) and Peter Lette found gold at the River Forth and at the Calder. Reef gold was discovered in 1869 at Lefroy. The first recorded returns from the Mangana fields date from 1870; Waterhouse, 1871; Hellyer, Denison and Beaconsfield, 1872; Lisle, 1878; Gladstone and Cam, 1881; Minnow and River Forth, 1882; Branhholm, 1883; and Mt Lyell, 1886.

The largest single source of gold was the 'Tasmania Mine' at Beaconsfield which began operating in 1878. The effect of Beaconsfield operations can be judged from the following State gold production figures (in kilograms): 1877, 163.78; 1878, 715.80; 1879, 1,705.36. Employment in gold mining in 1879 was stated to exceed 2,000 men. Peak gold production for the State was reached in 1899 with 2,381.13 kilograms but this was still only a minor contribution—just over two per cent to the Australian total.

Ranked in order of accumulated yield, the State's three principal gold mining centres were Beaconsfield, Mathinna and Lefroy. The 20th century witnessed a decline in Tasmanian gold mining, as such; when the 'New Golden Gate' at Mathinna closed in 1912, State annual gold production had fallen to 1,076.52 kilograms. In 1919, with the closure of the 'Tasmania Mine' at Beaconsfield, annual gold production fell to 217.89 kilograms.

Today there are no gold mines operating as such, but gold is still produced as a by-product from other minerals, principally concentrates of lead-copper, copper, lead and zinc. The assayed gold content of Tasmanian minerals mined in 1971-72 was 1,982.52 kilograms, compared with a Commonwealth total of 23,254.72 kilograms (i.e. the Tasmanian proportion had increased to 8.5 per cent).

Tin

In 1871 James ('Philosopher') Smith discovered 'tin oxide' (cassiterite) at Tinstone Creek near Mt Bischoff which was destined to become the greatest tin deposit known in the world. The Bischoff discovery was followed by numerous others, first in the north-east and then at Mt Heemskirk on the west coast. The Mt Bischoff Tin Mining Company, formed to work the deposit, had paid dividends totalling \$354 per \$10 share by 31 December 1907. Before production ceased, shortly after World War II, Mt Bischoff had yielded more than 81,000 tonnes of tin ore.

Some concept of the earlier scale of Tasmanian tin mining can be obtained from these export figures: average annual Tasmanian exports of tin, decade ending 1890, 3,861 tonnes; decade ending 1900, 2,693 tonnes. A mixture of export and production figures in the decade ending 1910 suggests that tin production had lifted to an annual average of 3,404 tonnes. In 1920 annual production fell to 1,331 tonnes and subsequently has often been below 1,100 tonnes.

There has been an upsurge in tin production in recent years, the result of vigorous exploration programmes undertaken in the 1960s during which potential tin bearing areas were examined. Two significant operations emerged—Cleveland Tin at Luina and Renison Ltd at Renison Bell. Both resulted from the development of known ore-bodies and the discovery of new ore-bearing lodes. The mines have introduced modern methods of underground mining and new treatment plants have been installed. Tin previously lost in plant tailings is now recovered following introduction of cassiterite flotation methods.

Main production today is centred on Renison Bell and Luina on the west coast and Ross-arden, Gladstone and South Mt Cameron in the north-east. In 1971-72 the assayed tin content of tin concentrates produced throughout Australia was 11,049 tonnes, the Tasmanian component being 6,469 tonnes.

Silver

The rush to the Zeehan-Dundas area, where silver-lead ore was discovered in 1882, commenced in 1888 and by 1891, 159 companies and syndicates were operating in the area. Initial rich returns led to the installation of a smelting plant at Zeehan. However, the rich surface ores were soon depleted; payable ore was located only below 183 metres and the field gradually declined after the closing of the Zeehan smelters in 1909.

The State still produces silver but mainly as a by-product of copper mining at Mt Lyell and zinc-lead mining at Rosebery. Operations at the Farrell Mine at Tullah were in the past regarded as 'pure' silver-lead mining because the zinc content was not recovered. The mine is now owned by the Electrolytic Zinc Company (A/asia) Ltd and the ore is treated at Rosebery.

together with zinc-lead ore from the company's Rosebery and Williamsford mines. In 1971-72 the assayed silver content of Tasmanian mine production was 83,118.10 kilograms, approximately 11.6 per cent of the corresponding Australian total. N.S.W. and Queensland are the leading producers.

Copper

The history of the Mt Lyell field dates from 1883 when the McDonough brothers and Johannes Karlson discovered the 'Iron Blow' outcrop. Isolation impeded development of the field and the transport problem was not solved until 1899 when the Mt Lyell Company's railway reached Strahan. The following year the North Mt Lyell Company completed a railway between Linda and Kellys Basin. The absurdity of two railways in the same area ended in 1903 with an amalgamation of the two companies.

Low-cost pyritic smelting was perfected at Mt Lyell in 1902 and as a result a smelting industry was established at Queenstown. In 1969 the smelter was closed down and subsequently concentrate has been shipped to Port Kembla and Japan for processing.

Mt Lyell, for many years Australia's leading copper mine, still ranks high among Australian producers. The final shot was fired at the 244 metre deep West Lyell open-cut mine on 31 August 1972 bringing to an end its 37-year working life. Mt Lyell Mining and Railway Co. has resumed underground mining in the Prince Lyell field, although a small open-cut at Crown-Three will continue for several years.

In 1971-72 the assayed copper content of Tasmanian mineral production was 26,603 tonnes, or about 14.5 per cent of the corresponding Australian total, Queensland being the principal producing State. About 90 per cent of the Tasmanian total is derived from Mt Lyell ores but there is also a copper content in the ores mined at Rosebery and Williamsford.

Zinc

The complex Rosebery ores were discovered near Mt Read in 1893 by Cecil Thomas (Tom) McDonald but it was not until 1925, when the Electrolytic Zinc Company of Australasia commenced smelting the Rosebery ores at Risdon, that full-scale development of the field commenced. The Rosebery mines have been in continuous production since 1925, apart from a temporary shut-down in the period 1930-1936 when depressed world zinc prices curbed production.

Mine output comes from three mines: the Rosebery mine at the foot of Mt Read (90 per cent of total output); the Hercules mine at Williamsford, some 4 kilometres south of Rosebery; and the Farrell mine at Tullah, on the Murchison Highway 10 kilometres north-west of Rosebery. Total annual capacity of the mining complex was almost doubled following the completion in 1971 of a new shaft at the Rosebery mine.

In 1971-72 the assayed zinc content of Tasmanian mine production was 72,129 tonnes, approximately nine per cent of the corresponding Australian total; N.S.W. was the major producer of zinc bearing ores. Tasmania is still the leading producer of refined zinc, the recovery process using both local and interstate concentrates. Production constitutes about 64 per cent of the Australian total.

Lead

The mining fields at Zeehan and Dundas were established to obtain silver from silver-lead ores; lead was produced as a by-product. Silver-lead mining has long ceased on the Zeehan fields. The Farrell mine at Tullah produces silver-lead ore which is treated at Rosebery with zinc-lead ores from Rosebery and Williamsford. These ores are now the principal source of lead in Tasmania.

In 1971-72 the assayed lead content of Tasmanian mine production was 22,684 tonnes, about five per cent of the corresponding Australian total; N.S.W. and Queensland are the principal producers.

Tungsten

Tungstic oxide (WO_3) occurs in two forms: in scheelite (calcium tungstate) and wolfram (iron manganese tungstate). There is a marked distinction between the mining of scheelite and of wolfram. Whereas scheelite in Tasmania is mined for its WO_3 content, wolfram is usually found in association with tin. Production of wolfram began in 1906 at Moina in the north-west but now comes from mixed tin-wolfram mines in the Avoca area.

Australia's principal domestic producer of tungstic oxide is King Island Scheelite Ltd from its mine at Grassy.

In 1971-72 the assayed tungstic oxide content of Tasmanian mine production was 1,914 tonnes; this was 98 per cent of the Australian total.

Sulphur

There are no known deposits of elemental sulphur in Australia, but its use is of vital importance in the heavy chemical and fertiliser industry, the principal form being as sulphuric acid. The sulphur content of the Mt Lyell and Rosebery ores is used to manufacture this acid.

In May 1970 a \$14m sulphuric acid plant was opened at Burnie as a joint venture by Mt Lyell Mining and Railway Company Ltd and Electrolytic Zinc Company (A/asia) Ltd using pyrites railed from the Mt Lyell and Rosebery mines. Sulphuric acid is also produced as a by-product by the Electrolytic Zinc Company (A/asia) Ltd at its Risdon plant. In 1971-72 the assayed sulphur content of Tasmanian mine production was 142,661 tonnes or 31 per cent of the corresponding Australian total. N.S.W. is the principal producing State.

Iron Oxide and Iron Ores

Tasmania has large deposits of iron ore which until recently were used mainly for iron oxide in the local manufacture of cement. The principal Tasmanian deposit at Savage River is held on licence by an Australian company, Industrial and Mining Investigations Pty Ltd. Part of the deposit is leased to American interests who have developed the Savage River mining complex described in detail in the 1968 *Year Book*.

Investigation work is also being carried out on additional iron ore deposits at Blythe and Hampshire on the north-west coast. During 1971-72, the Savage River mine produced 2,200,627 tonnes of dry concentrate with an assayed iron content of 1,505,702 tonnes.

MINERAL EXPLORATION

Introduction

The ore bodies in the areas leased to mines may be large but it is inevitable that they will be exhausted at some time in the future; rather than passively wait for this event, owners of operating mines press on with exploration outside the boundaries of their leases. In the past year competition for exploration areas has slackened. In Tasmania there has been concentration on relatively small areas where geological, geochemical and geophysical surveys have indicated favourable conditions for the occurrence of mineral deposits.

Mineral Exploration Areas

At 31 December 1972, 81 exploration and special prospectors' licences were in force in Tasmania covering an area of 18,088 square kilometres. Many of these licences are held by separate companies which are actively engaged in exploration.

In addition to companies investigating their own leases, several mining groups are engaged in exploration under options or other arrangements with licence holders and mining lessees.

Interest in mineral exploration in Tasmania has been at a high level in recent years. Companies which have been engaged in exploration for a considerable time are being restricted to areas where investigations have indicated that a more intensive search is justified. This has released areas for exploration by other companies which in some cases employ new investigation techniques.

Drilling by Mines Department

During 1972 the Mines Department employed its drilling plants in drilling for coal at the Duncan and Valley Mines, limestone at Railton and Mole Creek, and sandstone at Pontville, and continued boring for lode tin deposits at Waratah and for gold and nickel at Salisbury. Also, some testing was done at Miena for scheelite and for stratigraphic purposes, the first of three holes in a geophysical anomaly at Lefroy were bored, drilling was carried out in the Scottsdale area for general stratigraphic reasons, some diamond drilling was done for the Gordon River Scheme and foundation test drilling was carried out for roads and bridges and in slip areas. Two drills were also operated in water investigations in the Scottsdale-Winnaleah area.

Assistance Provided by Mines Department

The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or de-watering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work, and for diamond and other types of drilling. The Department has available, for hire, percussion and diamond drills for exploration as well as complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry in the form of geological and engineering advice, through ore-dressing, research into metallurgical recoveries, and the selection and design of treatment plant.

PETROLEUM EXPLORATION

General

In Tasmania at the end of December 1972 there was in force one Petroleum Exploration Licence issued under the *Mining Act* 1962 and six offshore Exploration Permits issued under the *Petroleum (Submerged Lands) Act* 1967-68. The licence covered 596 square kilometres. The offshore exploration permits covered 98,588 square kilometres of the continental shelf and adjacent Tasmanian waters.

Only a small number of exploration wells have been drilled in Tasmanian waters, the numbers for recent years being: 1965, one; 1966, one; 1967, one; 1968, one; 1969, three; 1970, four; 1971, one. During 1972 the Esso-B.H.P. partnership drilled four wells, hydro-carbon indications were found only in cores taken from the Pelican No. 3 well.

There was no onshore drilling during the period 1969 to June 1972.

Exploration Statistics

The following table shows details of wells, metres drilled and private expenditure for petroleum exploration:

Petroleum Exploration, Tasmania

Particulars	1967	1968	1969	1970	1971	1972
Wells Drilled—Offshore.. .. no.	1	1	3	4	1	4
Onshore.. .. no.	4	1	..	..	..	..
Metres Drilled metres	362	4,368	2,978	110,802	1,442	11,963
Private Expenditure (a) \$'000	2,424	998	1,837	4,708	1,938	..

(a) Excludes Commonwealth Government exploration subsidy.

The above section was prepared from information made available by the Tasmanian Mines Department, the Petroleum Information Bureau (Australia), the Ministry of Fuel and Power, Victoria and the Bureau of Mineral Resources.

STATISTICS OF MINERAL PRODUCTION

Source of Data

Statistics relating to quantities of minerals produced (including assayed metallic content) are, in the main, obtained from the State Mines Department and are supplemented, where necessary, with data obtained from the annual census of mines and quarries conducted by the Bureau of Census and Statistics, and from the Commonwealth Bureau of Mineral Resources.

Other details of the mining industry, such as employment, value of output, and costs of production, etc. are obtained from the annual census of mines and quarries conducted by the Bureau. This census was first conducted in 1952 and the information obtained from each census was basically the same until 1968. As from 1968-69 the mining sector census was standardised in accordance with the concepts employed in the Integrated Economic Censuses (see the Appendix to Chapter 10 for comparison between mining and other industries included in the Integrated Censuses).

Metallic Minerals

The table that follows shows the quantity of metallic minerals produced in Tasmania for a five-year period:

Metallic Minerals: Production

Mineral	1968	1969	1970	1971	1972
TONNES					
Copper—Concentrate ..	54,932	60,902	83,318	87,843	93,461
Ore ..	5,137	5,846	(a) ..	(a) ..	(a) ..
Precipitate ..	125	62	(a) ..	(a) ..	(a) ..
Copper-tin Concentrate ..	891	3,356	3,823	4,692	5,655
Iron—Concentrate ..	719,769	1,994,353	1,948,759	2,193,287	2,351,969
Oxide ..	12,985	11,295	9,710	10,724	9,783
Lead Concentrate ..	13,566	13,814	12,659	16,581	25,949
Lead-copper Concentrate ..	12,760	13,108	11,910	13,214	19,934
Pyrite Concentrate ..	43,186	28,993	108,771	152,545	211,884
Rutile Concentrate ..	..	5,323	7,528	6,930	431
Tin Concentrate ..	5,237	8,202	9,221	11,598	14,633
Tungsten Concentrates—					
Scheelite Concentrate ..	1,483	1,555	1,087	1,610	1,837
Wolfram Concentrate ..	492	616	913	817	771
Zinc Concentrate ..	83,781	85,607	78,589	89,644	147,180
Zircon Concentrate ..	..	6,194	6,173	3,831	..
KILOGRAMS					
Gold (not in Concentrates) ..	3.03	3.71	3.06	0.40	..

(a) Smelting of these items at Mt Lyell has ceased; present operations involve production of copper concentrates (mainly for export).

Assayed Content

In the following table, the various concentrates have been grouped to show their content in terms of individual metals. The contents stated are as determined by assay and include all pay metals and metals which are a refiner's prize; totals compiled on this basis contain no allowances for losses in smelting and refining and therefore, in general, exceed the quantities actually recoverable. The table refers exclusively to minerals mined in Tasmania.

Assayed Contents of Metallic Minerals Produced

Mineral	1968	1969	1970	1971	1972
COPPER (Tonnes)					
Copper—Concentrate ..	14,743	16,512	r21,481	22,603	24,291
Ore ..	184	87	(a) ..	(a) ..	(a) ..
Precipitate ..	26	16	(a) ..	(a) ..	(a) ..
Copper-tin Concentrate ..	172	578	775	925	1,038
Lead Concentrate ..	97	110	93	91	101
Lead-copper Concentrate ..	1,354	1,400	1,311	1,608	2,268
Zinc Concentrate ..	292	280	273	298	600
Total ..	16,867	18,984	r23,934	25,525	28,298
GOLD (Kilograms)					
Copper—Concentrate ..	274.86	326.18	399.96	422.67	481.45
Ore ..	1.49	1.62	(a) ..	(a) ..	(a) ..
Lead Concentrate ..	97.70	118.85	85.69	114.34	130.10
Lead-copper Concentrate ..	670.37	712.52	754.57	1,154.62	1,227.64
Zinc Concentrate ..	87.46	88.52	91.35	100.62	181.58
Other Sources ..	3.33	4.07	3.36	0.44	..
Total ..	1,135.20	1,251.76	1,334.93	1,792.68	2,020.77
IRON (Tonnes)					
Iron Concentrate ..	502,462	1,388,327	1,346,065	1,497,846	1,623,451
LEAD (Tonnes)					
Lead Concentrate ..	7,967	8,038	7,372	9,625	15,111
Lead-copper Concentrate ..	4,757	4,654	4,025	3,363	6,258
Zinc Concentrate ..	2,428	2,454	2,515	3,606	5,438
Zinc-lead Ore ..	..	..	22	r23	..
Total ..	15,152	15,145	13,934	r16,617	26,806
SILVER (Kilograms)					
Copper—Concentrate ..	2,548.37	2,463.61	3,510.78	3,671.27	4,080.06
Ore ..	120.99	58.29	(a) ..	(a) ..	(a) ..
Lead Concentrate ..	11,248.95	10,983.39	10,301.88	11,915.38	18,410.38
Lead-copper Concentrate ..	32,767.54	32,793.91	31,051.62	37,889.66	57,969.40
Zinc Concentrate ..	7,701.91	7,925.45	8,431.47	9,907.58	18,802.35
Zinc-lead Ore ..	..	..	52.78	20.22	..
Total ..	54,387.77	54,224.66	53,348.54	63,404.11	99,262.19
SULPHUR (Tonnes)					
Lead Concentrate ..	2,721	2,736	2,474	3,342	15,418
Lead-copper Concentrate ..	3,312	3,427	3,147	3,828	5,283
Pyrite Concentrate ..	20,866	13,742	(b)51,690	72,321	100,901
Zinc Concentrate ..	27,027	27,544	27,192	29,555	48,213
Total ..	53,926	47,450	84,502	109,047	169,815

Assayed Contents of Metallic Minerals Produced—*continued*

Mineral	1968	1969	1970	1971	1972
ZINC (Tonnes)					
Lead Concentrate	1,758	2,481	2,351	3,045	4,476
Lead-copper Concentrate	1,437	1,468	1,464	1,863	2,507
Zinc Concentrate	45,724	46,949	43,080	47,829	78,598
Zinc-lead Ore .. ..	..	..	27	r12	..
Total	48,919	50,898	46,922	r52,749	85,580
TIN (Tonnes)					
Copper-tin Concentrate	61	163	183	157	157
Tin Concentrate	r3,177	r4,690	4,835	6,009	6,667
Total	r3,238	r4,853	5,018	6,166	6,825
TUNGSTIC OXIDE (WO ₃) (Tonnes)					
Scheelite Concentrate	1,073	1,111	774	1,151	1,355
Wolfram Concentrate	353	r414	659	591	563
Total	1,426	r1,524	1,434	1,743	1,918
CADMIUM (Tonnes)					
Zinc Concentrate	75	77	70	84	138
MANGANESE (Tonnes)					
Zinc Concentrate	249	258	209	509	2,205
TITANIUM OXIDE (Tonnes)					
Rutile Concentrate .. ..	..	5,012	7,139	6,586	409
Zircon Concentrate .. ..	..	30	20	15	..
Total .. ..	..	5,043	7,159	6,601	409
ZIRCON (Tonnes)					
Rutile Concentrate .. ..	..	35	78	51	..
Zircon Concentrate .. ..	..	6,060	6,068	3,770	..
Total .. ..	..	6,094	6,146	3,820	..

(a) Smelting at Mt Lyell has ceased; present operations involve production of copper concentrate (mainly for export).

(b) Increased concentrate produced in association with sulphuric acid manufacture at Burnie.

Fuel Minerals (Coal)

The only fuel mineral mined in Tasmania is coal; details of production are shown for a five-year period.

Production of Coal in Tasmania
(’000 Tonnes)

Description	1968	1969	1970	1971	1972
Coal, Black—					
Semi-anthracite	2	2	1		
Bituminous	90	r116	r112	124	132
Total	92	r118	r114	124	132

Non-Metallic (Excluding Fuel) Minerals

The quarrying of limestone is the earliest recorded activity in the field of non-metallic mineral mining in the State; burnt lime being sought as a base for building mortar. Production of this non-metallic mineral has gradually increased to meet a rising demand in various industrial processes. Large exports of limestone were made in the period 1918-1947, when The B.H.P. Co. Ltd operated quarries at Melrose on the north-west coast.

The next table shows the Tasmanian production of non-metallic minerals for a five-year period:

Non-Metallic (Excluding Fuel) Minerals Production
(Tonnes)

Mineral	1968	1969	1970	1971	1972
Clays and Shales—					
Brick	162,674	r165,284	r124,444	r121,896	133,916
Other	64,112	r55,093	r58,702	r74,075	96,892
Dolomite	2,575	1,539	3,395	2,558	4,630
Limestone (a)	503,769	r572,944	r523,720	485,596	586,631
Peat Moss	133	153	141	r228	365
Ochre	11	80	42	71	48
Pebbles	1,233	1,039	1,668	1,510	1,716
Silica (b)	13,450	r29,684	r51,836	36,676	18,114

(a) Excludes quantities used directly as building or road construction materials.

(b) For glass, chemical, etc. manufacturing.

Construction Materials

In addition to the types of mining and quarrying previously described there is the quarrying of construction materials (for buildings, roads, etc.) such as crushed and broken stone, gravel and sand. This type of activity also is taken into account when placing a value on the output from mines and quarries, measuring their level of employment, etc.

CENSUS OF MINING ESTABLISHMENTS, 1968-69 to 1971-72

Introduction

As related in the previous section of this Chapter, annual censuses of mines were conducted by the Bureau from 1952; the last ‘old-style’ mining census covered the calendar year 1968. For 1968-69 simultaneous integrated economic censuses were undertaken in respect of mining and four other sectors (manufacturing; wholesale trade; retail trade; and electricity and gas production and distribution). In the Appendix to Chapter 10, the results of these censuses are presented so that the economic significance of mining can be compared with that of other sectors included in the censuses.

The reasons for changing to new concepts, new definitions, etc. are set out in Appendix A in the 1972 Year Book. Statistics derived from the 'old-style' mining census for 1968 and earlier years may be found in Chapter 8 of the 1973 Year Book.

Definition of Mining Establishment

All Activities at One Location

In all 1968-69 and later censuses, the basic census unit, in general, covers all the operations carried on under the one ownership at a single physical location. The *mining establishment* is thus one *predominantly* engaged in mining, but the data supplied for it now cover (with a few exceptions) the following activities (where applicable) at the location:

- (a) mining activities, including the dressing or beneficiation of ores or other minerals;
- (b) any activities connected with the selling and distribution of the minerals produced; and
- (c) any non-mining activities (e.g. manufacturing, construction, etc.).

Exceptions to this total coverage rule are made where any secondary or subsidiary activity (in terms of gross value) exceeds \$1m, and such locations are treated, for statistical purposes, as two or more establishments corresponding to the various kinds of activity carried on.

Administrative Offices and Ancillary Units

The mining establishment statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the enterprise which owns and operates the establishment. These units, such as head offices, storage premises, etc. were excluded from the 'old-style' mining censuses.

Effects of New Classification

The application of the definition of standardised census units has resulted in the exclusion of a number of units included in earlier mining censuses. Previous censuses covered mining and quarrying activities at a location, irrespective of whether they were the predominant activity. However, from 1968-69, if mining or quarrying is not the predominant activity, the establishment is included in a different census if its major activity is reported in another census sector, or otherwise classified as 'out-of-scope' of all present census sectors. For example, a brickworks mining its own clay is included in the manufacturing census and excluded from the mining census.

The most obvious effect of the change in scope is a reduction in the number of Tasmanian establishments: the number included in the 1968 mining and quarrying census was 168; the number included in the 1968-69 integrated census was only 75. The factors causing this sharp drop can be summarised as follows:

- (i) application of major activity rule as basis for inclusion in the mining census; and
- (ii) itinerant and part-time miners have now been omitted because of their limited scale of operations and consequent difficulties in collecting census returns from them.

Most of the reduction in number of establishments was due to factor (ii) but factor (i) had some effect, the most obvious exclusions being clay-mining and limestone quarrying (when these are subsidiary activities in establishments classified under manufacturing) and construction material quarrying (when this is a subsidiary activity of establishments classified under building and construction). It should be noted, however, that the excluded establishments are mainly small ones and that the volume of mining activities accounted for by such establishments is relatively insignificant.

New Data Concepts

The introduction of standardised data items in all census sectors has involved changes in the content of mining statistics. Basic items in the former mining censuses were 'value of output' and 'value of production' the new corresponding items in the 1968-69 mining census are 'turnover' and 'value added'. The new items are derived in a different way and while the old 'value of production' is somewhat similar in concept with the new 'value added', the old 'value of output' referred to value at the mine whereas 'turnover' relates to actual sales. The new items are defined below:

Value of Turnover

The value of turnover: *Equals* Sales and transfers out of minerals and other goods produced by the establishment;

Plus Sales and transfers out of minerals and other goods not produced by the establishment;

Plus Bounties and subsidies on production;

Plus All other operating income;

Plus Capital work done for own use, or for rental or lease.

In the above definition, all other operating income *includes* commission, repair and servicing revenue but *excludes* rents, leasing revenue, interest (other than from hire purchase), royalties and receipts from the sale of fixed tangible assets.

Purchases and Selected Expenses

Purchases and Selected Expenses: *Equals* Purchases and transfers in of electricity, fuels, stores and other materials for use in production;

Plus Purchases and transfers in of minerals and other goods for resale;

Plus Charges for commission and sub-contract work;

Plus Repair and maintenance expenses;

Plus Outward freight and cartage, motor vehicle running expenses and sales commission payments.

Value Added

The Value Added: *Equals* Value of turnover *plus* increase (or *less* decrease) in stocks *less* purchases and selected expenses.

Value added is the appropriate measure for comparing various industries and can be added for groups of industries without there being any possibility of duplication.

Transfers: In the previous definitions, the terms 'transfers in' and 'transfers out' occur. The transactions refer exclusively to transfers between establishments of the same enterprise.

Mining Establishments—Summary of Operations, 1968-69 to 1971-72

The tables that follow give results for the mining censuses from 1968-69 to 1971-72.

Relative Importance of Mining

In 1968-69 when simultaneous economic censuses were undertaken for five sectors of the economy (mining, manufacturing, electricity and gas, wholesaling and retailing and selected services) mining contributed 10.1 per cent of the total value added for the five sectors. For further details about the relative significance of mining compared to the other industries included in the economic censuses, see the special appendix, 'Integrated Economic Censuses' to Chapter 8 of this Year Book.

Non-comparability

Direct comparisons with figures for previous years prior to 1968-69 are not possible because of changes in the census units, the scope of the census and the items of data.

It should be noted, however, that statistics of the value of output at the mine of mineral products will continue to be compiled for all establishments, including those excluded from the mining census.

Census of Mining Establishments, 1968-69 to 1971-72
Summary of Operations by Industry Sub-division

Particulars	Unit	1968-69	1969-70	1970-71	1971-72
METALLIC MINERALS					
Establishments	no.	39	41	29	(a)17
Persons Employed (b)—					
Males	no.	3,642	3,851	4,194	4,165
Females	no.	136	164	189	186
Total	no.	3,778	4,015	4,383	4,351
Wages and Salaries	\$'000	16,281	17,526	21,661	24,432
Turnover	\$'000	58,888	80,303	74,280	84,567
Stocks—					
Opening	\$'000	7,846	8,734	10,805	13,515
Closing	\$'000	9,121	11,160	12,241	14,046
Purchases, etc (c)	\$'000	18,638	19,126	19,853	28,035
Valued Added	\$'000	41,524	63,604	55,863	57,063
Rent, Leasing Expenses	\$'000	44	84	66	53
Fixed Capital Expenditure (d)	\$'000	12,342	20,090	25,746	15,899
COAL (e)					
Establishments	no.	3	3	2	2
CRUDE PETROLEUM AND NATURAL GAS					
Establishments	no.	..	..	..	..
CONSTRUCTION MATERIALS					
Establishments	no.	25	26	19	24
Persons Employed (b)—					
Males	no.	174	165	146	167
Females	no.	3	3	2	3
Total	no.	177	168	148	170
Wages and Salaries	\$'000	548	547	490	634
Turnover	\$'000	3,212	2,776	2,510	2,856
Stocks—					
Opening	\$'000	248	261	214	223
Closing	\$'000	306	258	195	293
Purchases, etc. (c)	\$'000	1,194	1,289	1,111	1,449
Valued Added	\$'000	2,076	1,483	1,379	1,478
Rent, Leasing Expenses	\$'000	6	2	4	52
Fixed Capital Expenditure (d)	\$'000	271	362	144	378
OTHER NON-METALLIC MINERALS (e)					
Establishments	no.	8	8	9	10

Census of Mining Establishments, 1968-69 to 1971-72
Summary of Operations by Industry Sub-division—continued

Particulars	Unit	1968-69	1969-70	1970-71	1971-72
TOTAL MINING					
Establishments	no.	75	78	59	53
Persons Employed (b)—					
Males	no.	3,932	4,139	4,463	4,449
Females	no.	145	173	197	191
Total	no.	4,077	4,312	4,660	4,640
Wages and Salaries	\$'000	17,217	18,544	22,641	25,521
Turnover	\$'000	63,073	84,141	78,057	88,675
Stocks—					
Opening	\$'000	8,110	9,018	11,058	13,801
Closing	\$'000	9,450	11,464	12,505	14,391
Purchases, etc. (c)	\$'000	20,128	20,796	21,408	29,948
Valued Added	\$'000	44,286	65,791	58,096	59,317
Rent, Leasing Expenses	\$'000	54	92	110	116
Fixed Capital Expenditure (d)	\$'000	12,910	20,597	25,967	16,532

(a) From 1971-72 small tin producing establishments with value of sales less than \$20,000 have been excluded from the Census.

(b) At last pay-period in June; includes working proprietors.

(c) Purchases, transfers in and selected expenses.

(d) Outlay on fixed tangible assets less disposals.

(e) Other data not available for separate publication but included in 'Total Mining'.

Smelting and Refining of Metals

The turnover for a mining establishment includes the selling value of products produced at the establishment (e.g. in a metal mining establishment usually the selling value of specific concentrates at the mine). Earlier, reference was made to the fact that Tasmanian manufacturing industry statistics include the extraction and refining of metals, not only from locally produced ores and concentrates, but also from those that have been imported.

The next table shows details of establishments engaged in making iron ore pellets; extracting and refining copper, zinc and aluminium; and making ferro-manganese alloys. In terms of numbers employed and of 'value added', it will be seen that this manufacturing activity is almost as important as mining activity.

Non-Mining Activity: Extracting and Refining Metals

Particulars	Unit	1968-69	1969-70	1970-71 (a)	1971-72
Establishments	no.	5	4	n.a.	4
Persons Employed (b)	no.	3,764	3,730	n.a.	3,519
Turnover	\$'000	116,765	132,656	n.a.	130,836
Value Added	\$'000	41,075	54,688	n.a.	46,323

(a) There was no manufacturing census in 1970-71.

(b) Average over whole year, includes working proprietors.

In the previous table, the principal metals and concentrates included are iron ore pellets (from local ore), copper (from local ores), zinc and cadmium (from local and imported ores), aluminium (from imported bauxite) and ferro-manganese alloy (from imported ores). The codes for the Australian Standard Industrial Classification (ASIC) classes of establishments included in the table are; 2,911; 2,921; 2,922; 2,924; and 2,926.

The value added in the manufacturing table does not duplicate values already recorded in the mining sector since the cost of basic raw materials (ores or concentrates) is one of the recorded costs (purchases and selected expenses) of manufacture deducted from the value of turnover.

The next table gives details of the production of zinc and copper by refinery processes:

**Non-Mining Activity: Production of Zinc and Copper
(Tonnes)**

Year			Refined Zinc	Copper (a)	Year			Refined Zinc	Copper (a)
1964-65	..	..	141,006	12,320	1968-69	..	..	151,094	14,623
1965-66	..	..	146,221	14,135	1969-70	..	..	170,932	6,026
1966-67	..	..	146,227	14,862	1970-71	..	..	162,271	..
1967-68	..	..	131,872	14,288	1971-72	..	..	175,798	..

(a) Refined copper to 1964-65; blister copper from 1965-66. In October 1965, the Mt Lyell refinery was closed down and the blister copper was thereafter shipped to Port Kembla (N.S.W.) for refining. In December 1969, the Mt Lyell copper smelters closed down.

Aluminium Production

The refinery for the production of alumina and refined aluminium is situated at Bell Bay on the River Tamar. Production of alumina commenced in February 1955, and of refined aluminium in September 1955. Published statements indicate that the capacity of the plant, in terms of primary aluminium, has been lifted steadily in recent years. The commissioning in 1971 of a third potline brought annual capacity to 95,500 tonnes, nearly eight times the plant's productive capacity in 1961.

FISHERIES

General

The Tasmanian fishery involves about 1,230 licensed fishermen who operate from 589 vessels. The species which comprise the annual catch are not only scale fish but also include elasmobranchs (sharks), molluscs (scallops, oysters, abalone) and crustaceans (southern rock lobster).

In 1971-72 approximately 6,832 tons of fish, molluscs and crustaceans were harvested. The catch is composed of about 40 types of which five (southern rock lobster (crayfish), shark, snoek (barracouta), abalone and salmon) are of major importance (about 92 per cent of the catch).

The Sea Fisheries Division controls saltwater fisheries and the Inland Fisheries Commission controls the freshwater fisheries. Most freshwater fish are caught for sport but two species (eels and whitebait) are caught for sale.

Commercial fishing for whitebait began in 1941 and reached a peak in 1947 when over a million pounds were caught. The canning of whitebait ceased in the early 1950s and the annual catch declined to a few thousand pounds; however, the 1971-72 catch was 11,000 pounds.

Rainbow trout are raised commercially on a trout farm at Bridport. There are rainbow and brown trout in Tasmanian lakes and rivers (introduced as exotic species) but these may only be fished for by licensed sportsmen and may not be sold.

The commercial freshwater fishery for the short-finned eel was established in 1965 and the catch in 1971-72 was 55,000 pounds.

Fish Varieties and Species

The following table lists the main Tasmanian commercial fish varieties and species with their code numbers. The code numbers are prepared on behalf of the Commonwealth/State Fisheries Conference by the Fisheries Division of the Department of Primary Industry.

Main Commercial Fish Varieties, Species and Code Numbers

Variety	Species	Code Number	Variety	Species	Code Number
Eels	<i>Anguilla australis</i>		Flathead	<i>Neoplatycephalus</i>	
	<i>occidentalis</i>	035		<i>fuscus</i>	615
Whitebait	<i>Lovettia seali</i>	076		<i>N. richardsoni</i>	616
Rainbow Trout	<i>Salmo gairdnerii</i>	101		<i>N. speculator</i>	617
Flounder	<i>Rhombosolea spp</i>	151		<i>Trudis bassensis</i>	621
	<i>Pseudorhombus spp</i>	176		<i>Leviprora</i>	
Cod.. ..	<i>Physiculus</i>			<i>laevigata</i>	625
	<i>barbatus</i>	201	Shark	<i>Mustelus</i>	
Tuna	<i>Thunnus</i>			<i>antarcticus</i>	651
	<i>maccoyii</i>	301		<i>Galeorhinus</i>	
	<i>T. alalunga</i>	303		<i>australis</i>	655
	<i>Katsuwonus</i>		Garfish	<i>Hemirhamphus</i>	
	<i>pelamis</i>	315		<i>melanocephalus</i>	712
Mackerel	<i>Auxis thazard</i>	334	Southern Rock Lob-		
Snoek (Barracouta)	<i>Leiostomus xanthurus</i>	335	ster	<i>Jasus novaeollandiae</i>	780
				<i>Ostrea angasi</i>	831
Mullet	<i>Mugil cephalus</i>	351	Oyster	<i>Crassostrea gigas</i>	832
	<i>Aldrichetta</i>			<i>Pecten</i>	
	<i>forsteri</i>	370	Scallop	<i>meridionalis</i>	835
Trevally	<i>Usacaranx</i>			<i>Equichlamys</i>	
	<i>nobilis</i>	401		<i>bifrons</i>	836
Salmon	<i>Arripis trutta</i>	490		<i>Mimachlamys</i>	
Trumpeter	<i>Latris lineatus</i>	535		<i>asperimus</i>	837
	<i>Latridopsis</i>		Abalone	<i>Notobaliothis ruber</i>	845
	<i>forsteri</i>	536		<i>Schismotis</i>	
				<i>laevigata</i>	846

Fisheries Statistics

Source of Data and Method of Presentation

Statistics presented in this section have been supplied principally by the Sea Fisheries Division of the State Department of Agriculture. In the preparation of fisheries production statistics, the quantities are generally in terms of the form in which the catch is taken from the water. For example, the statistics of fish production are in terms of 'estimated live weight' which is calculated from landed weights by using conversion factors for the various species. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise-reduced condition. Crustaceans are reported on a 'whole weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis.

The actual edible yield varies, depending on types of fish, and methods of preparation. Barracouta yield about 51 per cent of liveweight when filleted, and shark about 60 per cent when headed and gutted. The edible flesh in molluscs represents only a small portion of the in-shell weight. The conversion factor for scallops is 1 lb flesh equals 5 lb in-shell weight and for abalone 1 lb flesh equals 2½ lb in-shell weight.

The catch is generally defined as that landed in Tasmanian ports, regardless of whether it is caught in Tasmanian waters or not, or whether it is caught by Tasmanian fishermen or not. A quantity of shark and southern rock lobster taken by Victorian based fishermen in Tasmanian waters, but landed in Victoria, is included in the Victorian catch and excluded from Tasmanian figures, on the basis that the catch influences the Victorian rather than the Tasmanian economy.

Details of production refer only to recorded commercial production. In view of the importance of amateur fishermen in certain types of fishing, details shown cannot be taken as representing the whole catch. In addition, it is likely that the figures shown understate, to some extent, the full commercial catch since no information is available on fish taken for sale by persons not licensed as professional fishermen.

Persons Engaged in Fisheries

In the following table, which gives details collected in the population Censuses of 1966 and 1971 (at 30 June), the numbers of persons whose industry was classified to 'fishing and whaling' are shown and compared with the numbers engaged in all primary industries and in the total labour force. The comparison shows that fishing is a relatively more important industry in Tasmania.

Australia and Tasmania: Persons Engaged in Fisheries
Population Censuses, 1966 and 1971

Particulars	Australia		Tasmania	
	1966	1971	1966	1971
Persons Engaged in—				
Fishing and Whaling '000	8.0	8.0	0.6	0.6
All Primary Industries '000	456.7	465.6	17.2	18.4
Total Labour Force '000	4,856.4	5,221.5	147.3	150.2
Persons Engaged in Fishing and Whaling as a Proportion of—				
All Primary Industries per cent	1.8	1.7	3.4	3.0
Total Labour Force per cent	0.2	0.2	0.4	0.4

Employment, Boats

Persons Engaged and Boats

The following table shows details of persons and boats employed in the taking of fish, crustaceans and edible molluscs. The data are derived from boat registration records of the State Sea Fisheries Division. The term 'number of crew' refers to the usual number of crew on registered fishing vessels and lacks the precision of the concept 'average number employed' used in statistics of other production sectors. Many of the fishermen operate part-time only, and may normally follow other occupations:

Fisheries: Number and Value of Boats, Number of Crew, etc. (a)

Particulars	1969	1970	1971	1972
Number of Boats Engaged (b)	553	529	588	589
Value of Boats Engaged (b) \$'000	5,951	6,195	6,980	7,478
Average Value per Boat \$	10,761	11,712	11,870	12,696
Number of Tender Boats	324	320	337	341
Total Value of Fishing Gear \$'000	552	540	598	628
Value of Fishing Gear per Boat \$	999	1,022	1,018	1,067
Number of Crew	1,123	1,090	1,207	1,235
Number of Boats According to Size—				
Under 20 feet	87	78	108	120
20 and under 30 feet	113	96	109	92
30 and under 40 feet	139	136	138	132
40 and under 50 feet	138	140	152	152
50 and under 60 feet	62	61	60	69
60 and under 70 feet	7	12	13	15
70 and under 85 feet	4	2	3	5
85 and under 100 feet	2	3	3	2
100 feet and Over	1	1	2	2

(a) Complete details collected for 1969; other years' figures are 1969 data adjusted for new registrations and for de-registrations.

(b) Excludes tender boats.

The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol motors of low power. The offshore vessels range in length from 30 feet to over 100 feet and almost invariably are powered by diesel engines. Refrigeration of the catch at sea is becoming more common, the four main types being ice box, ice cooling, brine tanks and dry refrigeration; almost all boats have wells or deck tanks which serve to keep the catch alive, e.g. crayfish or abalone.

The next table indicates the high proportion of relatively new boats operating in the fishing industry and analyses the 553 boats registered in 1969 according to age:

Number of Boats Classified According to Length and Age, 1969 (a)

Length of Boat (Feet)	When Constructed						
	Before 1930	1930 to 1939	1940 to 1949	1950 to 1954	1955 to 1959	1960 to 1964	1965 to 1969
Under 20 .. ..	..	1	7	5	11	11	52
20 and under 30	4	4	29	25	15	21	15
30 and under 40	16	15	21	18	20	27	22
40 and under 50	16	6	28	8	12	19	49
50 and under 60	4	4	12	3	6	13	20
60 and under 70 .. ..	..	1	1	..	1	1	3
70 and under 85	2	..	..	..	1	1	..
85 and Over	2	..	1	..	..	..	..
Total	44	31	99	59	66	93	161

(a) Available at five year intervals from 1969.

Production

Fish Catch

The following table shows the production of the main types of fish caught in Tasmania for a five-year period. The fish types appear in the table without any further description to identify the particular species but a specification of the more common types appears as an introduction to this section.

Fish: Production by Type
(*000 lb Estimated Live Weight) (a)

Type	1967-68	1968-69	1969-70	1970-71	1971-72
Mullet	20	48	31	22	24
Tuna	77	43	11	18	97
Shark	1,510	2,088	1,767	1,748	1,893
Australian Salmon	757	383	148	443	1,119
Flathead	101	64	24	152	140
Barracouta (Snoek)	3,581	3,089	3,480	1,346	1,281
Whitebait	56	82	98	33	11
Cod	10	12	22	13	8
Flounder	29	41	39	42	66
Trevally	8	14	22	31	85
Trumpeter	33	39	43	46	33
Garfish	26	28	51	60	75
Other	301	178	142	322	415
Total	6,509	6,108	5,878	4,276	5,247

a) Estimated live weights are calculated from landed weights by conversion factors since quantities of fish are reported frequently in a gutted, headed and gutted, or otherwise reduced condition (e.g. barracouta and shark).

Crustaceans and Molluscs

In terms of value, the most important item in the Tasmanian catch is southern rock lobster (crayfish) and the next table shows details of production of this crustacean and also of molluscs:

Crustaceans and Molluscs: Production by Type

Type	1967-68	1968-69	1969-70	1970-71	1971-72
CRUSTACEANS ('000 lb Whole Weight)					
Southern Rock Lobster ..	3,862	3,747	3,065	3,542	3,239
MOLLUSCS ('000 lb In-shell Weight)					
Squid .. .. .	..	..	1	7	17
Oysters	n.p.	39	69	71	118
Scallops	496	276	111	..	115
Abalone	6,142	4,648	5,749	7,689	6,550
Total	n.p.	4,963	5,930	7,767	6,800

Development of the Tasmanian abalone fishery dates from 1964 when divers commenced taking abalone for export. The 1963-64 catch was only 72,000 lb; in 1971-72 the catch had increased to 6,550 lb which was more than 1.1m pounds below the record 1970-71 abalone harvest. Currently, in terms of value, abalone is the second most important species in the Tasmanian catch.

Comparison with Other States

Southern Rock Lobster: In 1971-72 Tasmania ranked third as a producer of southern rock lobster, the two leading States being W.A. with 63 per cent of the Australian total and S.A. with 17 per cent; the Tasmanian catch was 11 per cent of the total.

Abalone: The Tasmanian abalone fishery in 1971-72 accounted for 37 per cent of Australian production of 17,541,000 lb (in the shell) of abalone. Victoria and New South Wales ranked second and third with 28 per cent and 18 per cent respectively.

Scallops: For many years Tasmania was the only State of the Commonwealth with a commercial scallop fishery; in 1955-56 Tasmania was joined by Queensland, but continued to retain its dominant position in the industry. In 1963, however, Tasmanian fishermen started a Victorian fishery in beds known to exist in Port Phillip Bay and the new site in its first year (1963-64) produced more than twice the quantity of the Tasmanian fishery. No scallops were dredged from Tasmanian waters in 1970-71, and only 115,000 lb in 1971-72. Victoria produced 16,677,000 lb of scallops in 1971-72 which was 75 per cent of the Australian total of 22,368,000 lb, while Queensland contributed 21 per cent. The Tasmanian catch is likely to increase following the recent discovery of new beds in Bass Strait. Fishing these Bass Strait beds began in 1973 and initial catches indicated that they have considerable commercial potential.

Catch Landed at Fishing Ports*Distribution of Fish Landed*

The table that follows shows the proportion of fish and southern rock lobster landed at Tasmanian fishing ports. The information relates to port of landing only, and not to the area in which the catch was made.

**Proportion of Total Fish and Southern Rock Lobster Landed at Each Port, 1970-71
(Per Cent)**

Port	Fish	Southern Rock Lobster	Port	Fish	Southern Rock Lobster
Derwent and Channel—			Bass Strait and Islands—		
Dover	4.4	6.8	Bridport	6.7	5.3
Gordon	0.5	..	Currie	0.4	2.3
Hobart	6.4	6.3	Lady Barron	2.4	7.3
Kettering	23.2	3.5	Port Sorell	5.1	0.5
Margate	2.8	7.4	Smithton .. .. .	..	2.2
Southport	0.4	0.5	Stanley	14.5	10.6
Woodbridge .. .. .	..	1.0	'Tamar' (a)	1.4	0.1
			Wynyard	10.5	0.8
Total	37.7	25.5	Total	41.0	29.1
East Coast & Peninsula—			West Coast—		
Bichenor	2.3	5.0			
Coles Bay	0.2	0.2	Strahan	0.5	12.7
St Helens	3.7	12.5			
Triabunna	5.5	8.0			
Dunalley	3.3	4.6			
Port Arthur	5.8	2.4			
Total	20.8	32.7	Total Tasmania	100.0	100.0

(a) Launceston, Beauty Point and other Tamar ports.

The next table shows the proportion of the total southern rock lobster catch landed each month:

**Proportion of Southern Rock Lobster Landed in Each Month
(Per Cent)**

Month	1970	1971	Month	1970	1971
January	17.2	19.4	July	3.9	4.4
February	12.3	11.7	August	3.5	2.5
March	9.7	10.7	September (a)	1.6	1.6
April	3.6	4.2	October (a)	0.9	0.3
May	2.3	1.4	November	26.0	19.4
June	3.3	3.2	December	15.7	21.2

(a) Closed season in most waters during these months.

Value of Production—Fishing

The table that follows gives details of gross and local values of edible fishery products. (For definitions see later section 'Value of Production'.)

**Fisheries: Gross and Local Value of Production
(\$'000)**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Gross Value of Production—					
Fish (a)	609	676	648	641	767
Crustaceans (Southern Rock Lobster) (b)	2,776	3,474	2,437	3,507	3,794
Molluscs	1,088	714	958	1,836	2,248
Total	4,473	4,864	4,043	5,984	6,808
Less Marketing Costs	805	764	700	868	879
Local Value of Production	3,668	4,100	3,343	5,116	5,929

(a) Includes value of seaweed harvested for production of alginate.

(b) Includes crabs from 1970-71.

Marketing

In general terms, it can be said that production of fish, crustaceans and molluscs from the Tasmanian fisheries far exceeds the demand generated by the relatively small State population; it follows, therefore, that the industry is largely dependent on its ability to find export markets, both interstate and overseas, and this raises the problem of preserving a perishable product. In the past, shark and snoek (barracouta) when caught in large quantities, were sold to orchardists as manure simply because there was no other way of disposing of the surplus. Cold storage facilities are now generally available and in addition, canneries offer an alternative method of preservation, the principal cannery being located at Margate in the south. From 1970-71, the catch of snoek has fallen dramatically compared to earlier years and has been well below demand. The problem of preservation has three aspects: (i) at sea; (ii) on shore; and (iii) in transit to market. Of the 553 registered fishing boats in 1969, 138 boats (i.e. 25 per cent) had refrigeration plant of various kinds. In addition, some catches, e.g. southern rock lobster, can be kept alive in boat wells. Cold storage facilities ashore serve to hold the catch before its despatch to interstate and overseas markets while actual exports are carried by air, by refrigerated trailer on the roll-on roll-off ferries and in the refrigeration chambers of conventional ships.

The following table shows the value of exports and imports of fishery products. The fact that Tasmania has an exportable surplus, yet nevertheless imports some fishery products, is chiefly due to differences in type; the imported varieties include canned sardines, anchovies, oysters, crabs, etc. together with frozen, salted or smoked varieties of European, New Zealand or South African origin. Tasmania has nine fish processors registered as exporters.

Fishery Products: Value of Exports and Imports
(£'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
EXPORTS					
Fish (a)—Overseas	5	4	13	7	11
Interstate	491	559	481	437	452
Southern Rock Lobster—					
Overseas	570	974	1,071	1,108	1,146
Interstate	922	1,191	1,048	966	1,298
Molluscs—Overseas	588	594	751	1,061	1,680
Interstate	131	190	197	314	193
All Types—Overseas ..	1,163	1,572	1,835	2,176	2,837
Interstate	1,544	1,940	1,726	1,716	1,943
Total	2,708	3,512	3,561	3,892	4,780
IMPORTS					
Fish—					
Fresh and Frozen—					
Overseas	136	174	140	187	58
Interstate	106	114	78	67	155
Preserved in Tins—					
Overseas	138	115	125	133	86
Interstate	242	50	36	67	105
Other (b)—Overseas	7	11	10	34	2
Interstate	7	8	2	4	29
All Types—Overseas ..	280	301	276	354	146
Interstate	355	172	116	137	289
Total	634	473	392	491	435

(a) Includes fresh and frozen fish and fish preserved in tins.

(b) Includes smoked, salted and potted fish, extracts and caviare.

New Projects

Fish-meal Industry

In December 1971 the Minister for Industrial Development announced that two United States businessmen proposed to establish a fish-meal plant at Triabunna on Tasmania's east coast. The industry would utilise schools of deep-sea fish, particularly jack mackerel, which are thought to be abundant in waters off the east coast of Tasmania. Fishing would be performed by purse seining and mid-water trawling from two modern 300-ton fishing boats. The industry would provide a substantial level of employment in the processing factory and on the fishing boats. However, local fishermen have expressed concern about two aspects of the proposed scheme: (i) depletion of fish stocks, particularly commercial varieties; and (ii) the ability of local fishermen to participate in the venture. The Triabunna plant is now set up and operations commenced in late 1973. The Fisheries Division of the Tasmanian Department of Agriculture will keep an overall surveillance on the enterprise to ensure that catches do not exceed the maximum sustainable yield.

Fisheries Division

(Department of Agriculture)

Administration

The Division of Fisheries comes under the responsibility of the Minister for Agriculture and Fisheries. For purposes of administration the Division is under the control of the Director of Agriculture.

Under the *Fisheries Act* 1959, provision is made for a Sea Fisheries Advisory Board to advise the Minister on fisheries except in respect of salmon-trout, eels and whitebait which come under the control of the Inland Fisheries Commission. The Board consists of nine members appointed by the Governor as follows: the Director of Agriculture (or his representative); the Commissioner of Police (or his representative); a representative of societies interested in the science of zoology; two representatives of processors; and four representatives of professional fishermen.

Fisheries Control

Patrol and inspection duties are carried out by Division officers throughout the State. As well as Tasmanian fisheries, certain Commonwealth waters and the Tasmanian section of the continental shelf are patrolled in addition to the enforcement of the provisions of the Australia-Japan Fishing Agreement; regular inspections are made of Japanese fishing vessels when they enter the port of Hobart. For fisheries control and patrol purposes the Division has five high-powered patrol vessels plus the *Challenger* (69 feet 6 inches long), a long-range patrol-research vessel. The Division also owns conventional vehicles and three four-wheel drive vehicles. The latter are used for checking remote areas and towing the larger patrol vessels. During 1972-73 extensive use of light aircraft was made to assist in patrol duties and resulted in the detection of several serious breaches of fishery regulations.

During 1971-72 inspectors submitted 92 offence reports; 49 cases went before the courts and resulted in total fines of \$3,751.

Research

The Division is concerned with three main fields of research: (i) resource management and surveys; (ii) aquaculture; and (iii) pollution investigations. As a part of resource management and surveys—abalone, scallop, squid, southern rock lobster and various pelagic fish are under investigation. The division is also actively engaged in research into oyster, mussel and scallop culture. An important aspect of the Division's work is pollution studies—fish and shellfish are collected and analysed in this work.

Survey of Bass Strait Scallop Resources

The development of the Bass Strait scallop beds resulted from research work undertaken from the Fisheries Division's patrol-research vessel, *Challenger*. Studies were undertaken during 1972-73 following reports by fishermen of the existence of scallops in the area between Stanley and King Island and around the Furneaux Group. (Dredging from the Japanese research vessel *Umitaka Maru* in 1968 had revealed large numbers of doughboy scallops to the north-west of Flinders Island and between Waterhouse and Cape Barren Islands.) A grant of \$24,560 from the Australian Fisheries Development Trust Account was received to assist finance the survey.

The survey located four major concentrations of commercial scallops—three in the eastern area (one off Bridport and two near the Furneaux Group) and a fourth concentration in the western part of Bass Strait out from Stanley. As well as these major concentrations many other smaller and less dense pockets of scallops were encountered during the survey. These scallop beds are now being developed by Tasmanian fishermen operating out of northern ports.

VALUE OF PRODUCTION

PRIMARY AND SECONDARY INDUSTRIES

Introduction

The value of production for Tasmania and the other Australian States was computed in accordance with the decisions reached at the Conferences of Australian Statisticians, and principally at the Conference held in 1935. The values shown in the tables that follow refer only to the production of primary industries and factories and exclude the building and construction industry, those industrial establishments not classified as factories, and certain agricultural and farmyard operations on areas of less than one acre.

New Value Concepts

The value series allowing direct comparison of primary and secondary industries ends at 1967-68. From 1968-69 new value concepts were introduced in the mining and manufacturing sectors. The new value concepts, while analogous to those described in the following section, are nevertheless sufficiently different to prevent direct comparisons being made for years later than 1967-68. However, in the special appendix (Integrated Economic Censuses) to Chapter 10, series will be found which combine and compare value data for mining, manufacturing, wholesale and retail establishments.

Primary Industries

The following primary industries are those for which data are separately compiled in the value of production tables:

Primary, Rural

Agriculture
Pastoral
Dairying
Poultry
Bee-farming

Primary, Non-Rural

Hunting
Forestry
Fishing
Mining and Quarrying (until 1968-69)

In respect of these primary industries, the following uniform definitions are employed:

- (i) *Gross Value of Production* is the value placed on recorded production at the wholesale prices realised at the principal markets. In cases where primary products are consumed at the place of production, or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets. Subsidies and bounties paid by the State and Commonwealth Governments to primary industries are, in general, included in gross value of production.

- (ii) *Local Value* (i.e. recorded production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission and other charges incidental thereto.
- (iii) *Net Value of Production* represents local value *less* value of materials used in the process of production. Materials used in the process of production include seed, power, petrol and oils, feed consumed by farm stock, manures, dips, sprays and other costs of a similar nature. No deductions from local values have been made for depreciation, certain maintenance charges, wages, interest, or some other costs normally incurred.

Secondary Industries (Factories)

New value concepts were introduced into manufacturing statistics from 1968-69 and direct comparison of secondary industries with primary industries cannot be made for 1968-69 and following years.

To place a value upon the production of factories, the following definitions were employed in the series which ended 1967-68:

- (i) *Value of Output* was the value of goods manufactured and included the amount received for repair work, work done on commission, etc. The basis was the selling value *at the factory*, exclusive of all delivery charges.
- (ii) *Value of Production* was the value of output *less* the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges), insurance, pay-roll tax, income tax, advertising, interest on borrowed money, bad debts and other sundry charges.

In examining values for primary and secondary production before 1968-69, it will be seen that *gross value of production* is a concept confined to primary industries; that *local value* for primary industries is broadly analogous in concept with *value of output* for factories; that *net value of production* for primary industries is comparable with *value of production* for factories, since both are derived by deducting the value of materials used in the process of production, a procedure which eliminates possible duplication of values.

Comparing or Combining Industries

In comparing or combining production values for any of the previous industries, it is logically necessary to use only *net value of production* (primary) and *value of production* (secondary); both *gross* and *local* values will be found unsatisfactory because some degree of duplication will be involved. An obvious example of duplication can occur when the raw material for a factory process is the final product of a farm (e.g. the value of hops is contained in the *gross value of agriculture* and also in the *value of output of factories*, specifically of breweries). The primary-secondary relationship not only involves primary products becoming raw materials for factories but also factory products (e.g. fertilisers) becoming essential materials for primary industries. Less obvious, perhaps, is the fact that one rural industry may supply the 'raw material' for another rural industry (e.g. hay from *agriculture* consumed by livestock in the *pastoral* and *dairying* industries).

In the following sections, *gross* and *local* values are shown for the various primary industries; the basic reason for publication is not to facilitate comparison and combination of these values for individual industries, or groups of industries, but rather to show how *net value of production* is computed.

In accordance with the previous definitions, net value of production for primary industries is computed by deducting the cost of materials used in the process of production from the local value. Details of such costs are not available for: (i) bee-farming; (ii) hunting; (iii) forestry; and (iv) fishing. In the case of these industries, only local value can be computed.

Sources of Information—Value of Production

Primary Production, Rural

The data used are those concerning quantity of primary production (supplied principally by farmers, etc.) together with information collected from various sources on prices realised in the principal markets for different products, the costs of marketing these products and the costs of certain materials used in their production. Price and cost data are obtained from statutory authorities (e.g. Dairy Produce Equalisation Committee), market reports, special returns collected from wholesalers, brokers, auctioneers, etc., and from overseas and interstate trade statistics.

Primary Production, Non-Rural

(i) *Hunting*: Principal data are derived from export of skins and information on the annual mutton bird catch.

(ii) *Forestry*: Principal value data are available from the annual factory census, since forestry products are the basic raw material for sawmills, newsprint and paper mills, etc.

(iii) *Fishing*: Quantity data are supplied by fishermen and prices are collected from fish wholesalers and agents.

(iv) *Mining and Quarrying*: Principal value data are supplied by mine operators in the annual mining census.

Secondary Production

Factories: Both quantity and value data are supplied by factories in the annual factory census. Further details will be found in Chapter 9, 'Manufacturing, Electricity and Gas'.

Period Covered

Secondary: Year ended 30 June.

Primary, Rural: Generally the year ended 30 June but includes current season's production harvested after 30 June, e.g. potatoes.

Primary, Non-Rural: For mining and quarrying a year ended 31 December up to 1968, then a year ended 30 June from 1968-69; other industries, year ended 30 June.

GROSS VALUE OF PRODUCTION

Rural Industries

Rural industries, for value of production purposes, comprise: (i) agriculture; (ii) pastoral; (iii) dairying; (iv) poultry; and (v) bee-farming. These industries have no relation, however, to any classification of individual rural holdings on an industry basis; a single holding would usually produce several products, some attributable to one and some to another such industry (e.g. wheat and oats which would be counted in agriculture, wool in pastoral and milk in dairying). The industries represent merely a convenient grouping of the aggregate production of individual products.

Agriculture

The following table shows gross values, for a five-year period, of the groups of crops which comprise the agricultural industry:

Gross Value of Production: Agriculture
(\$'000)

Crop	1967-68	1968-69	1969-70	1970-71	1971-72
Cereals for Grain	2,789	2,115	r2,178	r2,296	2,066
Legumes Mainly for Grain	354	366	470	576	258
Crops for Hay (a)	922	492	237	275	167
Crops for Green Feed or Silage (b)	6,680	5,741	3,894	2,958	1,905
Orchard Tree Fruit	17,825	15,751	17,071	15,689	12,430
Berry and Small Fruit	790	912	881	991	1,037
Vegetables for Sale for Human Consumption	9,461	8,128	9,723	8,538	8,648
Other Crops	2,768	3,243	3,073	2,770	3,352
Pasture Harvested for Hay	5,470	7,358	3,980	5,590	5,612
Pasture Harvested for Seed	112	246	178	285	179
Pasture Harvested for Green Feed or Silage	140	247	172	202	218
Total	47,309	44,599	r41,860	r40,169	35,870

(a) Excludes pasture cut for hay.

(b) Includes vegetables for stock feed.

The next table shows quantity and value details for the main items comprising the agricultural industry. Also included in the table is the average value per unit.

Gross Value of Production: Agriculture, 1971-72

Crop	Unit of Quantity	Production	Gross Value	
			Per Unit	Total
			\$	\$'000
Crops (excluding Pasture Harvested) Cereals for Grain—				
Barley	bushels	1,221,149	1.07	1,310
Oats	bushels	388,557	0.78	304
Wheat	bushels	307,046	1.47	452
Total Cereals for Grain .. .. .	..	..	..	2,066
Legumes Mainly for Grain—				
Beans—Navy	bushels	9,534	3.15	30
Horse	bushels	4,259	2.58	11
Peas, Field—Blue	bushels	60,608	2.72	165
Grey and Other	bushels	24,621	2.11	52
Total Legumes Mainly for Grain .. .. .	..	..	..	258
Crops for Hay (a)	tons	12,765	13.05	167
Crops for Green Feed or Silage (b) .. .. .	..	..	..	1,905
Fruit—				
Orchard Tree Fruit—				
Apples	bushels	5,873,000	1.97	(c) 11,580
Apricots	bushels	24,351	3.51	86
Pears	bushels	295,741	2.39	(c) 705
Total Orchard Tree Fruit .. .. .	..	..	..	(d) 12,430
Berry and Small Fruit—				
Currants	'000 lb	2,513	153.99	387
Loganberries	'000 lb	562	156.58	88
Raspberries	'000 lb	2,891	160.84	465
Strawberries	'000 lb	188	372.34	70
Total Berry and Small Fruit .. .. .	..	..	..	(d) 1,037

Gross Value of Production: Agriculture, 1971-72—continued

Crop	Unit of Quantity	Production	Gross Value	
			Per Unit	Total
			\$	\$'000
Vegetables for Sale for Human Consumption—				
Beans, French and Runner	'000 lb	13,202	49.84	658
Peas, Green (Ex-shell)	'000 lb	38,870	52.30	2,033
Potatoes	tons	69,258	37.92	2,626
Turnips	tons	3,956	107.71	426
Total Vegetables for Sale for Human Consumption .. .. .	..	..	..	(d) 8,648
Other Crops—				
Hops (Dry Weight)	'000 lb	2,556	855.00	2,185
Other .. .. .	..	..	..	1,167
Total Other Crops .. .. .	..	..	..	3,352
Total (Excluding Crops from Pasture) .. .. .	..	..	..	29,863
Pasture (e) Harvested—				
Pasture Harvested for Hay	tons	430,064	13.05	5,612
Pasture Harvested for Seed	cwt	8,496	21.07	179
Pasture Harvested for Green Feed or Silage .. .. .	..	..	..	218
Total Crops from Pasture .. .. .	..	..	..	6,009
Total All Crops .. .. .	..	..	..	35,870

(a) Excludes pasture for hay.

(b) Includes vegetables for stock feed.

(c) Includes Government Stabilisation Subsidy of \$1,955,000 distributed between apples and pears.

(d) Includes other crops not specified in the table.

(e) Includes lucerne.

Average Unit Gross Values

In the next table, average unit gross values for the principal crops are shown for a five-year period. The unit values have been calculated for the principal agricultural products by dividing the total quantity produced into the total gross value of production for each crop. They therefore represent weighted average 'prices' of the product in all markets (including the farm itself where quantities are retained for farm use) and indicate trends rather than prices actually paid to farmers.

Average Unit Gross Value of Principal Crops (\$)

Crop	Unit of Quantity	1967-68	1968-69	1969-70	1970-71	1971-72
Cereals for Grain—						
Barley	bushel	1.49	1.29	1.19	1.16	1.07
Oats	bushel	1.00	0.87	0.80	0.81	0.78
Wheat	bushel	1.46	1.14	1.44	1.31	1.47
Legumes Mainly for Grain—						
Beans—Navy	bushel	..	..	..	..	3.15
Horse	bushel	3.20	3.76	4.35	2.62	2.58
Peas, Field—Blue	bushel	2.58	2.61	2.51	2.72	2.72
Grey and Other	bushel	3.14	2.87	2.80	2.31	2.11
Crops for Hay	ton	20.68	15.88	11.67	13.31	13.05

Average Unit Gross Value of Principal Crops—continued
(£)

Crop	Unit of Quantity	1967-68	1968-69	1969-70	1970-71	1971-72
Orchard Tree Fruit—						
Apples	bushel	2.10	2.03	2.10	1.97	1.97
Apricots	bushel	3.23	3.44	3.83	3.05	3.51
Cherries	bushel	7.33	6.92	6.95	5.85	10.43
Nectarines	bushel	4.60	5.22	6.00	5.64	6.10
Peaches	bushel	5.03	5.25	6.10	5.46	5.40
Pears	bushel	2.08	2.54	2.78	2.74	2.39
Plums and Prunes	bushel	1.49	1.79	1.66	2.15	2.04
Quinces	bushel	0.90	1.06	1.18	1.20	1.33
Berry and Small Fruit—						
Blackberries	lb	0.12	0.12	0.13	0.12	0.10
Currants	lb	0.13	0.13	0.14	0.15	0.15
Gooseberries	lb	0.06	0.06	0.07	0.08	0.09
Loganberries	lb	0.13	0.13	0.15	0.15	0.16
Raspberries	lb	0.14	0.15	0.15	0.16	0.16
Strawberries	lb	0.23	0.23	0.29	0.32	0.37
Vegetables for Sale for Human Consumption—						
Beans, French and Runner	'000 lb	69.72	53.71	60.31	54.42	49.84
Peas, Green (Ex-shell) ..	'000 lb	53.14	50.41	45.12	54.01	52.30
Potatoes	ton	48.30	29.38	46.29	42.18	37.92
Turnips	ton	85.66	93.15	99.89	110.97	107.71
Hops	lb	0.77	0.77	0.77	0.77	0.85
Pasture (a) for Hay	ton	20.68	15.88	11.67	13.31	13.05
Pasture (a) for Seed—						
Clover	cwt	46.29	43.65	48.00	46.85	51.84
Other	cwt	18.83	15.94	16.98	22.98	15.80

(a) Includes lucerne.

Pastoral, Dairying, Poultry and Bee-farming

The products allocated to the pastoral, dairying, poultry and bee-farming industries for value of production purposes are:

- (i) *Pastoral Industry*: Comprises wool (including wool on skins), cattle slaughtered (other than culled dairy cows and bobby calves, i.e. calves slaughtered as soon as practicable after birth) and sheep and lambs slaughtered.
- (ii) *Dairying Industry*: Comprises milk, dairy cattle slaughtered (culled dairy cows and bobby calves) and pigs slaughtered.
- (iii) *Poultry Industry*: Comprises poultry slaughtered and eggs produced.
- (iv) *Bee-farming Industry*: Comprises honey and beeswax produced.

The prime source of data on livestock slaughtered is information supplied by slaughtering establishments, supplemented by farmers' annual census returns giving details of slaughtering on farms. As sufficiently detailed information is not available on the types of cattle slaughtered to enable a precise dissection of total slaughterings to be made between the pastoral and dairying industries, data on the known culling rate in dairy herds are also used for this purpose.

The table that follows gives details of the gross value of production for each of the products of these industries:

Gross Value of Production: Pastoral, Dairying, Poultry and Bee-farming
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Pastoral—					
Shorn Wool (including Crutchings) ..	14,498	19,713	16,827	13,986	17,044
Other Wool (a)	1,111	1,467	1,253	998	957
Sheep and Lambs Slaughtered (b) (c) ..	5,396	5,852	6,464	5,734	5,634
Cattle Slaughtered (b) (d)	9,816	12,086	13,987	13,741	16,920
Total	30,821	39,117	38,532	34,459	40,554
Dairying—					
Milk	19,828	21,473	21,307	22,244	24,440
Cattle Slaughtered (d)	2,017	1,917	2,524	2,463	2,409
Pigs Slaughtered (b)	5,018	4,324	4,943	5,150	5,254
Total	26,862	27,713	28,774	29,858	32,103
Poultry—					
Eggs	4,229	4,854	4,652	4,495	4,373
Poultry Slaughtered	914	1,040	913	1,053	1,251
Total	5,143	5,894	5,566	5,548	5,624
Bee-farming—					
Honey	118	97	120	173	159
Beeswax	5	5	7	7	7
Total	123	102	127	180	166

(a) Dead, fellmongered and wool exported on skins.

(b) Includes adjustment for net exports of livestock.

(c) Excludes value of wool on skins.

(d) Culled dairy cows and bobby calves slaughtered are allocated to dairying; all other cattle slaughtered to pastoral.

Primary Industries

The following table brings together gross values of production for all primary industries for a five-year period:

Gross Value of Production: Primary Industries
(\$ million)

Industry	1967-68	1968-69	1969-70	1970-71	1971-72
Agriculture	47.3	44.6	41.9	40.2	35.9
Pastoral	30.8	39.1	38.5	34.5	40.6
Dairying	26.9	27.7	28.8	29.9	32.1
Poultry	5.1	5.9	5.6	5.5	5.6
Bee-farming	0.1	0.1	0.1	0.2	0.2
Total Rural ..	110.3	117.4	114.9	110.2	114.3
Hunting	0.5	0.4	0.3	0.3	0.3
Forestry	15.5	16.0	18.9	17.1	21.9
Fishing	4.5	4.9	4.0	6.0	6.8
Total Non-rural (excluding Mining)(a)	20.4	21.2	23.2	23.4	29.0
Total Primary (excluding Mining)(a)	130.7	138.7	138.1	133.6	143.3

(a) See earlier sections 'New Value Concepts' and 'Primary Industries' for an explanation of why mining has been deleted from this series.

NET VALUE OF PRODUCTION—ALL RECORDED INDUSTRIES

Net Value, 1971-72

The next table shows, in detail, the method whereby gross values (primary industries) are reduced to local values and then further reduced to net values:

Value of Production: All Primary Industries, 1971-72
(\$ million)

Industry	Gross Value of Production (Value at Principal Market)	Less Marketing Costs	Local Value (i.e. Production Valued at Place of Production)	Less Cost of Materials, Fuel, etc. Used	Net Value of Production
Rural—					
Agriculture	35.9	9.7	26.2	5.9	20.3
Pastoral	40.6	3.4	37.2	10.6	26.6
Dairying	32.1	0.9	31.2	4.4	26.8
Poultry	5.6	0.1	5.6	2.8	2.7
Bee-farming (a)	0.2	..	0.1	n.a.	0.1
Total Rural	114.3	14.1	100.3	23.7	76.6
Non-rural (a)—					
Hunting	0.3	..	0.2	n.a.	0.2
Forestry	21.9	3.7	18.2	n.a.	18.2
Fishing	6.8	0.9	5.9	n.a.	5.9
Total Non-rural (excluding Mining) (b) ..	29.0	4.6	24.4	n.a.	24.4
Total Primary (excluding Mining) (b) ..	143.3	18.7	124.6	23.7	100.9

(a) Gross and local values available but production costs not available.

(b) See earlier sections 'New Value Concepts' and 'Primary Industries' for an explanation of why mining has been deleted from this series.

In the preceding table costs of materials, fuels, etc. used are only calculated for the agricultural, pastoral, dairying and poultry industries. The selected production costs exclude such items as depreciation charges, the cost of repair and maintenance to plant, equipment and buildings used in the industries, veterinary expenses, etc. However, estimates for certain major production cost items, such as stock feed, fertilisers, electric power, fuel, seed, sprays, etc. are prepared. Data for calculation of these selected costs are obtained from a variety of sources e.g. quantity information is based on data obtained from the annual farm census, merchants dealing with rural producers, manufacturers, etc., while unit costs are obtained from surveys, dealers' and manufacturers' price lists, etc.

For bee-farming and the non-rural sector (excluding mining) it is not possible to prepare similar production cost estimates since insufficient information is available on the type and quantity of materials and fuels used.

Cost of Materials, Fuel, etc. Used in Rural Industry

The following table has been compiled to show details of those costs taken into account in rural industry:

Value of Production

Rural Industry: Recorded Costs, 1971-72
(\$'000)

Cost Item	Agriculture	Pastoral	Dairying	Poultry	Bee-farming (a)	Total
Seed	1,369	245	105	..	..	1,719
Fertilisers	988	2,964	1,248	..	..	5,200
Spraying, Sheep-dip	1,400	176	60	..	..	1,636
Stock Feed	50	6,290	1,983	2,650	..	10,973
Water for Irrigation	147	62	62	..	..	271
Power, Fuel and Light	1,909	858	968	169	..	3,904
Total	5,863	10,595	4,426	2,819	..	23,703

a) Costs not available for bee-farming.

Net Value—Summary

The next table summarises, for a five-year period, the net value of production for all recorded industries:

Net Value of Production: All Recorded Industries
(\$ million)

Industry	1967-68	1968-69	1969-70	1970-71	1971-72
Primary, Rural—					
Agriculture	29.3	28.0	r24.8	23.1	20.3
Pastoral	12.5	22.4	24.2	21.0	26.6
Dairying	18.2	20.3	r23.0	r24.2	26.8
Poultry	2.7	3.4	2.7	2.7	2.7
Bee-farming (a)	0.1	0.1	0.1	0.2	0.1
Total Rural	62.7	74.1	r74.8	r71.2	76.6
Primary, Non-rural—					
Hunting (a)	0.4	0.3	0.3	0.3	0.2
Forestry (a)	13.4	13.5	16.1	14.2	18.2
Fishing (a)	3.7	4.1	3.3	5.1	5.9
Mining and Quarrying	25.2	(b)	(b)	(b)	(b)
Total Non-rural	42.7	(c) 18.0	(c) 19.8	(c) 19.6	(c) 24.4
Total Primary	105.5	(c) 92.1	(c) r94.6	(c) r90.8	(c) 100.9
Secondary—					
Factories	198.0	(b)	(b)	(b)	(b)
Total Industries	303.5	..	..	..	..

(a) Local value of production.

(b) See earlier sections 'New Value Concepts' 'Primary Industries' and 'Secondary Industries (Factories)' for an explanation of why mining and factories are not included in this series after 1967-68.

(c) Excludes 'Mining and Quarrying'; see note (b).

The next table compares the net values of production of the primary and secondary industries and shows the dominance of secondary industry:

Net Value of Production, Selected Years: Primary-Secondary Industry Comparison

Year	Primary		Secondary		Total Net Value
	Net Value	Proportion of Total	Net Value	Proportion of Total	
	\$'000	per cent	\$'000	per cent	\$'000
1950-51	66,947	57.6	49,229	42.4	116,176
1953-54	65,427	49.7	66,129	50.3	131,556
1956-57	79,181	44.9	97,365	55.1	176,546
1959-60	75,808	38.6	120,392	61.4	196,201
1967-68 (a)	105,470	34.8	198,019	65.2	303,489

(a) See introductory section headed 'New Value Concepts'.

Tasmania and Australia Compared

Some indicator other than comparison with previous years is needed. Probably the most significant measure is the comparison between the net values of production for all recorded Tasmanian industries and those for Australia as a whole.

Net Value of Production: Tasmania and Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
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NET VALUE OF PRODUCTION: ALL RECORDED INDUSTRIES
(\$ million)

Tasmania	303.5	(a) 92.1	(a) r94.6	(a) r90.8	(a) 100.9
Australia	10,549.5	(a) r3,035.6	(a) r2,913.0	(a) r2,803.4	(a) 3,151.1

TASMANIAN PROPORTION OF AUSTRALIAN TOTAL
(per cent)

Primary, Rural—					
Agriculture	3.3	2.3	2.4	2.2	1.8
Pastoral	1.2	1.9	2.0	2.1	2.2
Dairying	4.9	5.4	5.5	5.5	5.7
Poultry	4.1	4.7	3.3	3.3	3.4
Bee-farming (b)	2.7	3.4	2.5	3.6	2.3
Total Rural	2.6	2.6	2.7	2.7	2.6
Primary, Non-rural—					
Hunting (b)	4.2	3.2	2.5	3.2	2.6
Forestry (b)	12.2	12.0	14.0	11.1	13.1
Fishing (b)	6.8	7.0	5.8	7.0	7.1
Mining and Quarrying	4.4	(a)	(a)	(a)	(a)
Total Non-rural	5.8	..	..	..	..
Total All Primary	3.4	..	..	..	..
Secondary—					
Factories	2.7	(a)	(a)	(a)	(a)
Total Industries	2.9	..	..	..	..

(a) Excludes mining and manufacturing sectors; see earlier sections 'New Value Concepts', 'Primary Industries' and 'Secondary Industries (Factories)'.

(b) Local value of production.

Tasmania-Australia Comparison

Taking into account Tasmania's proportion of the Australian population (3.1 per cent), and examination of the 1971-72 comparisons in the previous table, it is immediately apparent which are Tasmania's most important industries on a *national basis*. In order the most significant industries appear to be forestry, fishing and dairying.

Leaving aside the question of Tasmania's contribution to the national total, the State's most important industries (excluding manufacturing and mining and quarrying) on a net value of production basis, as shown in earlier tables, in 1971-72 were dairying, pastoral, agriculture and forestry. For comment on the relative importance of these industries and secondary industry see the appendix 'Integrated Economic Censuses' to Chapter 10 of this Year Book.

Chapter 9

MANUFACTURING, ELECTRICITY AND GAS

MANUFACTURING

Historical

The evolution of Tasmanian farming is described in continuous annual statistics from 1818 but the early records relating to factories are extremely meagre. While the early colonial statisticians had immediately put on record such fundamental measures as acreages, crop yields and livestock numbers, they were content, in the matter of factories, to merely classify and count the number of establishments. Some concept of early manufacturing activity can be derived from the following table which has been adapted from the *Statistical Returns of Van Diemen's Land, 1824 to 1839*:

Comparative Account of Manufactories and Trades in Van Diemen's Land

Description of Establishment	Number of Establishments		Description of Establishment	Number of Establishments	
	1824	1838		1824	1838
Agricultural Implement Makers	..	9	Mills—Steam .. ..	..	3
Breweries	3	19	Water and Wind ..	5	51
Candle Makers .. ..	..	4	Potteries .. .. .	..	1
Cooperages .. .. .	..	9	Printing Offices ..	1	8
Coachmakers .. .. .	..	2	Ropemakers	1	1
Distilleries	1	4	Sailmakers	1	5
Dyers .. .. .	..	2	Sawmills	1	2
Engineers .. .. .	..	7	Shipwrights .. ..	..	5
Fellmongers	2	4	Snuff Makers .. ..	..	1
Foundries .. .. .	..	3	Soap Makers	1	1
Furriers .. .. .	..	2	Tanners	6	15
Mast and Block Makers	..	1	Wool Staplers .. ..	..	3

The grinding of wheat for flour gave rise to the first demand for power, the original solution being water mills and windmills followed by use of the steam engine (the first steam mill commenced in 1831). Later records refer to 'mills, horse-driven', the beast being driven around a circular track. The relation between early factory activity and the farming and whaling economy in which it grew is indicated by the fact that, in the table, five of the descriptions (e.g. fellmongers, etc.) refer to processing of animal products, four (e.g. shipwrights, etc.) to the construction and maintenance of ships and two (breweries, distilleries) to the making of alcoholic beverages for which there were nearly as many licensed outlets as exist today.

The *Account of Manufactories and Trades*, on a simple establishment basis similar to the last table, was published annually throughout the 19th century and is a guide to the introduction of new industries and new skills to the State.

The presentation of factory statistics, in the private sector, on a simple establishment basis failed to answer a number of questions such as the number of employees, the quantities and values of items produced, the total value of output, the capital invested, etc., and this lack of information persisted until 1882 when the Government Statistician began publishing quantity, value and employment data for jam factories and breweries; the coverage of industries was then gradually expanded until, by 1911, publication had commenced of annual factory statistics showing most of the basic information sought in current collections.

Some indication of the transformation of Tasmania from an essentially rural economy is given in the following table in which the proportion of the work force engaged in manufacturing activities is compared in the period 1911 to 1961. The comparison cannot be taken beyond 1961 due to new definitions affecting labour force (1966 Census) and a new industrial classification (1971 Census). A dissection of the 1971 labour force appears in Chapter 6, 'Demography'.

Employment in Tasmanian Factories Compared with Total Labour Force

Particulars	1911	1921	1933	1947	1954	1961
Factory Employment (a)—						
Males	8,737	8,525	7,147	16,186	20,249	24,811
Females	1,561	1,602	2,086	3,751	4,340	5,347
Persons	10,298	10,127	9,233	19,937	24,589	30,158
Labour Force (b)—						
Males	61,182	65,998	69,226	80,201	93,976	101,289
Females	13,343	14,001	16,861	20,117	24,232	29,628
Persons	74,525	79,999	86,087	100,318	118,208	130,917
Factory Employment as Percentage of Labour Force—						
Males	14.3	12.9	10.3	20.2	21.5	24.5
Females	11.7	11.4	12.4	18.6	17.9	18.0
Persons	13.8	12.7	10.7	19.9	20.8	23.0

(a) Average number of persons engaged, including working proprietors, as reported in the annual Factory Census for 1911 and 1921 and those for financial years ending in 1933, 1947, 1954 and 1961. Establishments producing electricity and gas were classified as 'factories'.

(b) Source: censuses of population in years shown; includes employers and self-employed.

Electric Power and Industrialisation

In 1900 the Government Statistician published operational details of Tasmania's chief manufacturing industries; these read in part as follows (with specification of the number of 'hands' employed): Sawmills, 920; Jam Factories, 499; Boot Factories, 364; Brickyards and Potteries, 247; Woollen Mills, 177; Tanneries and Fellmongeries, 131; Flour Mills, 126; Breweries, 97; Butter Factories, 92; Fruit-drying Sheds, 76; Soap and Candle Factories, 57; Bark Mills, 33; Bacon Factories, 18. At this time, virtually all power was generated by steam engine on the factory site; the alternative sources such as gas, oil and electricity were rarely used. A year later the establishment of the Commonwealth of Australia introduced free trade between the States and this deprived Tasmanian industries of the protection they had previously enjoyed. The free importation of Australian manufactures, chiefly from Victoria, brought about a period of stagnation and inhibited the further development of manufacturing industry within the State; loss of population by migration to other parts of Australia in each decade up to World War II reflected the lack of employment opportunities which an expansion of manufacturing activity would have provided.

If a new factor had not been introduced in the years after Federation, the probability is that Tasmania would have maintained a predominantly rural economy, diversified to a limited extent by sawmilling and mining. In these circumstances, employment opportunities would have been severely restricted and the more industrialised mainland States would have continued to rapidly drain the island's population growth attributable to natural increase. The new factor that eventually transformed the State's economy was hydro-electric power but its possibilities could not be exploited without heavy capital expenditure and massive construction works, all of which required time. It is paradoxical, therefore, that the first major hydro-electric construction works were initiated in a period of stagnation immediately prior to World War I, and that the second major construction phase was pushed forward during the 1930s when the State's factory activity was at a very low ebb due to the general economic depression.

The key to the further industrialisation of Tasmania was its abundant supply of water at high level in the Central Plateau and the State's industrial revolution may be thought of as beginning in 1916 when the Waddamana turbines below the Great Lake began operating; from the initial 7,500 kW then developed, the hydro-electric system has expanded to today's capacity of over 1,340 kW. The availability of cheap electric power resulted in the establishment of new types of industry, some on a very large scale; examples are: electrolytic zinc production, 1917; carbide manufacture, 1918; fine paper production, 1938; aluminium production, 1955; ferro-manganese production, 1962. The introduction of pulp and paper manufacture is a special case to the extent that changes in technology made possible the use of native hardwoods for the first time; the production of suitable pulp from eucalypts was pioneered in Tasmania before plants were established in other Australian States.

Given that electrical power is cheap and usually abundant, the question arises as to why the industrialisation of the State did not progress further. The two obvious impediments to the rapid introduction of new enterprises are the small size of the local market and the costs of transportation to the principal markets in the other States. The weighing of these factors (i.e. cheaper power against possibly higher transportation costs) naturally had the effect of attracting industries requiring large quantities of power. Such undertakings were not necessarily large employers of labour so it is possible that industrialisation, measured by capital investment and electrical power consumption, progressed more rapidly than industrialisation measured by involvement of the labour force in factory activities.

In recent years, Tasmania's price advantage in selling electric power has undergone change due to a number of factors: for example, large-scale thermal plants on the Australian mainland have become more efficient; interest, a major cost in hydro-electric development, has become a heavier charge; new works have had to be undertaken in areas increasingly remote and inaccessible. The cost comparison favouring the island State still exists but the differential is not now so marked. The search for new avenues of industrial development goes on but the attraction of cheap electric power has declined in relative importance.

MANUFACTURING STATISTICS

Introduction

Factory statistics based on the new definitions developed for the integrated economic censuses are not comparable with those produced under the old system i.e. before 1968-69. However, one table of the old series has been retained in the following section to provide a picture, over a number of years, of factory activity in Tasmania.

A more complete summary of factory statistics relating to the years preceding the introduction of the new concepts of the Integrated Censuses of 1968-69 is set out in Chapter 9 of the 1973 *Year Book*.

Factory Statistics Prior to 1968-69

The statistics dealing with factories before 1968-69 were compiled from returns supplied annually by manufacturers. A return had to be supplied for every factory, which was defined for this purpose as an establishment where four or more persons were employed or where power (other than manual) was used in any manufacturing process.

If a manufacturing business was conducted in conjunction with any other activity, particulars relating to the manufacturing section only were included in the statistics. Where two or more industries were conducted in the same establishment, a separate return was obtained for each industry, if practicable.

Manufacturers were required to state in their returns particulars of the number, wages, etc. of their employees, the value of premises and equipment and of factory stocks, the horsepower of machinery, the value and, in many cases, the quantities of raw materials and fuel used, and quantities and values of principal articles produced. The returns obtained from manufacturers were not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

Employment Definitions

The average number of persons employed was compiled on two different bases: (i) the average number of persons employed during the period of operation of factories which was used mainly for the purpose of classifying factories according to number of workers employed; and (ii) the average number over the whole year (equivalent number working for a full year) which was used for all other tabulations.

Value Definitions

The *value of factory output* was defined as the value of goods manufactured or their value after passing through the particular process of manufacture and *included* the amount received for repair work, work done on commission and receipts for other factory work. The basis of the valuation of output was the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of Government bounty and subsidy payments.

The *value of production* was defined as the value added to raw materials by the process of manufacture. It was calculated by deducting from the value of factory output the value (at the factory) of those items of cost, other than wages and salaries, specified on the factory statistical collection form, namely materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges); the remainder so derived was the value added to raw materials, and represented the amount available for wages taxation, rent, interest, insurance, etc. and profit.

Series Ending in 1967-68

The next table shows factory development, including electricity and gas, over a long period as measured by the number of factories, employment, value of production, etc. In making comparisons over so long a period, account should be taken of changes in the purchasing power of money. The series ends in 1967-68 but data for 1968-69 and following years appear later in this Chapter.

Development of Factories from 1911: Selected Years

Year	Number of Factories	Average Number of Persons Engaged (a)	Salaries and Wages Paid (b)	Value of—			
				Materials Used, Fuel, etc. (c)	Production (d)	Output	Land, Buildings, Plant and Machinery
			\$m	\$m	\$m	\$m	\$m
1911 ..	609	10,298	1.7	4.2	2.9	7.1	4.5
1920 ..	616	10,225	3.0	8.8	5.5	14.3	5.8
1929-30 ..	845	10,820	4.1	10.0	7.1	17.1	19.9
1939-40 ..	980	14,670	5.4	13.5	12.5	26.0	21.1
1949-50 ..	1,456	23,506	19.3	51.5	38.7	90.2	44.8
1954-55 ..	1,597	25,452	37.7	101.0	76.2	177.2	118.9
1959-60 ..	1,683	29,662	57.6	147.7	120.4	268.1	251.3
1963-64 ..	1,746	31,833	70.6	188.5	152.6	341.1	310.1
1964-65 ..	1,805	32,580	76.5	214.2	167.3	381.5	364.3
1965-66 ..	1,792	34,315	83.0	229.0	175.6	404.6	370.6
1966-67 ..	1,771	34,879	90.8	243.4	194.6	438.0	403.1
1967-68 ..	1,797	35,178	96.2	247.1	198.0	445.1	448.0

(a) Average for whole year after 1927-28; earlier averages relate to the period of operation. Includes working proprietors.

(b) Excludes drawings of working proprietors.

(c) Includes materials used plus cost of power, fuel, light, water and lubricating oils, containers, packing, etc., tools replaced and repairs to plant but excludes depreciation allowance and sundry overhead charges (e.g. rates, land tax, etc.) not specified on the factory form.

(d) Value of output *less* cost of materials used, fuel, etc. as defined in note (c).

Principal Articles Manufactured

The next table lists the principal articles manufactured in Tasmania. In several cases, however, where there are only one or two producers or where one producer dominates, it is not possible to publish details for articles that are important and would otherwise appear in the table. To give some indication of changes in production, quantity details are given for 1938-39, 1959-60, 1969-70, 1970-71 and 1971-72.

Principal Articles Manufactured: Quantities

Article	Unit	1938-39	1959-60	1969-70	1970-71	1971-72
Acid, Sulphuric	tonnes	14,385	129,077	266,449	387,193	558,658
Aerated Waters	'000 litres	1,537	8,356	13,352	14,047	14,402
Bacon and Ham	tonnes	878	1,162	1,403	1,803	1,984
Bran and Pollard	tonnes	8,109	11,976	8,947	8,994	9,198
Bread (2 lb loaf equivalents) ..	'000	11,337	27,175	28,349	<i>n.a.</i>	27,931
Bricks, Blocks, etc.	'000	14,541	(a)23,975	38,436	39,562	44,945
Butter (b)	tonnes	4,118	11,932	16,343	15,273	15,318
Cheese	tonnes	1,443	333	5,407	5,556	5,907
Concrete, Ready Mixed	'000 m ³	..	<i>n.a.</i>	<i>n.a.</i>	196,848	212,287
Electricity, Total Generated	mkWh	567	2,532	5,140	5,451	5,778
Fertilisers—						
Sulphate of Ammonia	tonnes	..	58,525	40,563	40,252	41,358
Superphosphate	tonnes	30,569	104,260	133,245	105,323	104,763
Flour	tonnes	17,764	28,007	21,947	22,264	22,488
Fruit—						
Canned or Bottled—						
Apples, Solid Pack	tonnes	1,049	7,522	5,879	4,990	3,626
Berry Fruits	tonnes	416	1,335	193	200	<i>n.p.</i>
Dehydrated and Evaporated						
Apples	tonnes	346	253	328	261	283
Bed Bases, Woven Wire	no.	3,386	7,286	8,966	7,090	6,792
Paper, Newsprint	tonnes	..	89,931	173,314	178,682	181,977
Timber—						
Sawn, Peeled or Sliced (c)—						
Hardwood	'000 m ³	197.0	389.1	400.7	394.3	401.2
Softwood	'000 m ³	3.6	11.2	13.0	11.8	11.6
Dressed—						
Floorboards	'000 m ³	12.1	69.6	81.5	<i>n.a.</i>	<i>n.a.</i>
Weatherboards	'000 m ³	4.5	8.8	4.5	<i>n.a.</i>	<i>n.a.</i>
Other	'000 m ³	2.7	37.7	69.9	<i>n.a.</i>	<i>n.a.</i>
Woodchips, etc. (green weight) (d)	'000 tonnes	..	<i>n.a.</i>	(e) 761	829	1,213
Zinc, Refined	tonnes	70,946	119,785	170,932	162,271	175,798

(a) Excludes the output of the first year of factory production of concrete blocks.

(b) Includes butter equivalent of butter oil.

(c) Includes timber to be further processed.

(d) Defined in Forestry section of Chapter 8.

(e) Estimated from final product data.

The articles just listed do not include the following important Tasmanian products: aluminium, automotive engine bearings, carbide, cement, confectionery, ferro-manganese alloys, hand tools, hardboard, iron ore pellets, particle board, printing, writing and wrapping papers, starch, titanium di-oxide, canned, dehydrated and quick frozen vegetables, wood pulp, woollen manufactures, other textile products and sodium alginate. Some articles, although principal manufactures, such as cakes, pastry and pies, wooden furniture and joinery (excluding doors) are not included, as value details only are collected for such items.

Manufacturing Statistics from 1968-69

As related in the previous section of this Chapter, annual censuses of factories were conducted by the Bureau from almost the start of the present century; the last 'old style' factory census covered the year 1967-68. For 1968-69 simultaneous integrated economic censuses were undertaken in respect of manufacturing and four other sectors (mining; wholesale trade; retail trade; and electricity and gas production and distribution).

The integrated economic censuses 1968-69 were fully described in Appendix A of the 1972 *Year Book* in which there also appears an explanation of the factors which made necessary the termination of 'old style' factory censuses and the start of a new series, based on new reporting units and data concepts. In this section, it is intended to give the results of manufacturing censuses covering 1968-69, 1969-70 and 1971-72 (there was no census for 1970-71).

Definition of Manufacturing Establishment

All Activities at One Location

In all 1968-69 economic sector censuses and those held thereafter the basic census unit, in general, covers all the operations carried on under the one ownership at a single physical location. The *manufacturing establishment* is thus one engaged predominantly in manufacturing but the data supplied for it now cover (with a few exceptions) all activities at the location. The data cover not only specified manufacturing primary to one class of industry, but also:

- (a) any other manufacturing activity (i.e. production of goods primary to another class of industry);
- (b) any selling and distribution activities connected with the products manufactured; and
- (c) any non-manufacturing activity (e.g. selling of goods not manufactured by the establishment, or extraction of raw materials for the use by the establishment).

Exceptions to this total coverage rule are made where the secondary or subsidiary activity (in terms of gross value) exceeds \$1m and such locations are treated for statistical purposes as two or more establishments corresponding to the various kinds of activity carried on.

Administrative Offices and Ancillary Units

The manufacturing establishment statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the enterprise which owns and operates the establishment. These units include head offices, storage premises and certain manufacturers' sales branches or sales offices; however, if the last types of unit distribute to customers from stocks they hold, then they are treated as establishments in their own right and included in the wholesale census.

Effects of New Classification

The establishment's classification is based on the Australian Standard Industrial Classification (ASIC). ASIC defines the industries in the economy for statistical purposes and specifies the scope of the different economic censuses without gaps or overlaps. The adoption of ASIC has resulted in changes in scope between the 1968-69 manufacturing census and the earlier factory censuses. The main changes in scope are as follows:

- (a) Electricity and gas production is made the subject of a separate census, the coverage of which is extended to include distribution.
- (b) Establishments mainly engaged in the following activities, previously included in factory censuses are excluded in 1968-69: (i) motor vehicle repairs; (ii) repair and servicing of agricultural machinery; (iii) dry-cleaning, laundering, and dyeing services; (iv) watch, clock and jewellery repairing; (v) custom dressmaking and tailoring, repairs, alterations, etc.; (vi) installing and repairing of blinds and awnings, making up and installing of curtains; and (vii) repair of domestic appliances. Establishments mainly engaged in these activities were excluded from the 1968-69 manufacturing census and included in either the census of retail trade or the census of wholesale trade. (The full title in the retail sector was 'Census of Retail Trade and Selected Services'.)
- (c) Establishments mainly engaged in slaughtering or milk treatment were previously excluded from the factory census but were included in the 1968-69 manufacturing census.

The most obvious effect of the change in scope is the change in the number of Tasmanian establishments: the number included in the 1967-68 factory census was 1,797; the number included in the 1968-69 manufacturing census was only 951. The factors causing this sharp reduction can be summarised as follows: (i) change in scope; (a) and (b) above combined caused a very large decrease while (c) caused only a small increase; and (ii) classification by major activity caused the elimination of establishments where manufacturing was not the major activity; such establishments were covered in the mining, retail or wholesale censuses if their major activities were reported in these sectors, or otherwise classified as 'out-of-scope' of all present census sectors.

New Data Concepts

The introduction of standardised data items in all census sectors has involved changes in the content of manufacturing statistics. Basic items in the former factory censuses were 'value of output' and 'value of production'; the new corresponding items in the 1968-69 manufacturing census are 'turnover' and 'value added'. The new items are derived in a different way and while the old 'value of production' is somewhat similar in concept with the new 'value added', the old 'value of output' referred to value at the factory door whereas 'turnover' relates to actual sales. The new items are defined below:

Value of Turnover

The Value of Turnover: *Equals* Sales and transfers out of goods manufactured by the establishment;

Plus Sales and transfers out of goods not manufactured by the establishment;

Plus Bounties and subsidies on production;

Plus All other operating income;

Plus Capital work done for own use, or for rental or lease.

In the above definition, all other operating income *includes* commission, repair and servicing revenue but *excludes* rents, leasing revenue, interest (other than from hire purchase), royalties and receipts from the sale of fixed tangible assets.

Purchases and Selected Expenses

Purchases and Selected Expenses: *Equals* Purchases and transfers in of materials, electricity, fuels, containers, etc.;

Plus Purchases and transfers in of goods for resale;

Plus Charges for commission and sub-contract work;

Plus Repair and maintenance expenses;

Plus Outward freight and cartage, motor vehicle running expenses and sales commission payments.

Value Added

The Value Added: *Equals* Value of turnover;

Plus Increase (or *less* decrease) in stocks;

Less Purchases and selected expenses.

Value added is the appropriate measure for comparing various industries and can be added for groups of industries without there being any possibility of duplication.

Transfers

In the previous definitions, the terms 'transfers in' and 'transfers out' occur. The transactions refer exclusively to transfers between establishments of the same enterprise.

Census Results

The following tables summarise the information from the annual Manufacturing Censuses, as a time series wherever 1971-72 preliminary results are available. In more detailed later tables, only the final results of the single year 1969-70 are dissected.

Manufacturing Establishments Classified According to Industry

The tables that follow contain a summary of the principal manufacturing statistics by industry sub-division:

Manufacturing Establishments: Operations by Industry Sub-division

Asic Code (a)	Industry Sub-division Description	Year Ended June (b)	Establishments Operating at 30 June	Employment (Including Working Proprietors)—Average Over Whole Year			Wages and Salaries	Turnover
				Males	Females	Persons		
21,22	Food, Beverages and Tobacco ..	1969	no. 202	no. 4,522	no. 1,876	no. 6,398	\$'000 18,777	\$'000 119,744
		1970	189	4,659	1,907	6,566	20,299	130,307
		1971						
		1972 _p	168	4,229	1,757	5,986	21,543	149,783
23	Textiles	1969	17	1,752	2,027	3,779	8,990	35,457
		1970	19	1,759	2,115	3,874	9,063	35,021
		1971						
		1972 _p	21	1,638	2,029	3,667	10,824	39,628
24	Clothing and Footwear	1969	13	110	244	354	671	1,576
		1970	13	108	248	356	702	1,692
		1971						
		1972 _p	13	93	214	307	756	1,584
25	Wood, Wood Products and Furniture	1969	397	4,257	282	4,539	11,731	50,524
		1970	391	4,400	292	4,692	12,845	57,381
		1971						
		1972 _p	363	4,250	326	4,576	14,669	65,548
26	Paper and Paper Products, Printing	1969	52	4,671	960	5,631	19,734	78,404
		1970	58	4,808	1,004	5,812	21,191	89,766
		1971						
		1972 _p	60	5,133	897	6,030	28,494	99,825
27	Chemical, Petroleum and Coal Products ..	1969	16	1,303	77	1,380	5,058	27,341
		1970	18	1,324	77	1,401	5,581	30,319
		1971						
		1972 _p	21	1,396	80	1,476	7,122	36,242
28	Non-Metallic Mineral Products ..	1969	53	1,024	74	1,098	3,744	16,375
		1970	48	980	72	1,052	3,976	17,654
		1971						
		1972 _p	54	948	79	1,027	4,275	20,720
29	Basic Metal Products ..	1969	14	3,975	141	4,116	15,856	121,418
		1970	14	3,967	139	4,106	16,575	138,513
		1971						
		1972 _p	13	3,675	129	3,804	19,264	136,032
31	Fabricated Metal Products ..	1969	88	1,295	198	1,493	3,924	17,094
		1970	88	1,384	210	1,594	4,908	21,585
		1971						
		1972 _p	86	1,179	196	1,375	4,780	19,318
32	Transport Equipment	1969	27	1,075	152	1,227	3,555	9,315
		1970	23	1,063	168	1,231	3,649	10,027
		1971						
		1972 _p	34	1,047	200	1,247	4,328	12,421

Manufacturing Establishments: Operations by Industry Sub-division—continued

Asic Code (a)	Industry Sub-division Description	Year Ended June (b)	Establishments Operating at 30 June	Employment (Including Working Proprietors)—Average Over Whole Year			Wages and Salaries	Turnover
				Males	Females	Persons		
33	Other Industrial Machinery and Equipment and Household Appliances	1969	no. 57	no. 787	no. 129	no. 916	\$'000 2,648	\$'000 8,808
		1970	60	761	138	899	2,876	8,055
		1971						
		1972 _p	62	1,084	133	1,217	4,045	11,548
34	Miscellaneous Manufacturing	1969	15	121	22	143	375	1,051
		1970	24	158	19	177	439	1,315
		1971						
		1972 _p	36	187	37	224	610	2,397
	Total Manufac-turing	1969	951	24,892	6,182	31,074	95,065	487,109
		1970	945	25,371	6,389	31,760	102,104	541,636
		1971						
		1972 _p	931	24,859	6,077	30,936	120,708	595,047

(a) Australian Standard Industrial Classification number.

(b) No census held covering 1970-71.

Manufacturing Establishments: Operations by Industry Sub-division
(\$'000)

Asic Code (a)	Industry Sub-division Description	Year Ended June (b)	Stocks		Purchases, Transfers in and Selected Expenses	Value Added	Fixed Capital Expenditure
			Opening	Closing			
21,22	Food, Beverages and Tobacco	1969	20,266	21,574	84,595	36,458	4,831
		1970	20,742	22,891	89,235	43,221	5,829
		1971					
		1972 _p	21,754	22,233	99,068	51,195	5,256
23	Textiles	1969	15,649	15,743	18,740	16,811	636
		1970	11,093	10,892	18,993	15,827	697
		1971					
		1972 _p	10,195	9,760	20,520	18,673	844
24	Clothing and Footwear ..	1969	362	356	727	844	5
		1970	355	325	737	925	-1
		1971					
		1972 _p	275	259	651	917	17
25	Wood, Wood Products and Furniture	1969	11,541	12,260	28,554	22,689	1,426
		1970	12,502	12,915	32,414	25,381	1,170
		1971					
		1972 _p	13,849	14,383	37,355	28,729	10,719
26	Paper and Paper Products, Printing	1969	12,869	12,972	37,301	41,206	17,901
		1970	12,925	14,245	49,996	41,090	15,192
		1971					
		1972 _p	16,272	16,805	53,009	47,348	179
27	Chemical, Petroleum and Coal Products	1969	5,844	5,972	16,909	10,561	2,119
		1970	5,976	6,065	17,293	13,115	12,737
		1971					
		1972 _p	5,901	6,277	20,792	15,826	2,106

Manufacturing Establishments: Operations by Industry Sub-division—continued
(\$'000)

Asic Code (a)	Industry Sub-division	Year Ended June (b)	Stocks		Purchases, Transfers in and Selected Expenses	Value Added	Fixed Capital Expen- diture
	Description		Opening	Closing			
28	Non-Metallic Mineral Products	1969	1,859	2,127	8,110	8,534	1,721
		1970	2,132	2,275	8,037	9,760	1,603
		1971					
		1972 _p	2,360	2,629	9,347	11,642	1,170
29	Basic Metal Products . .	1969	18,535	25,620	85,650	42,853	4,654
		1970	25,276	22,729	79,076	56,890	10,854
		1971					
		1972 _p	28,132	35,038	94,673	48,265	4,063
31	Fabricated Metal Products ..	1969	3,831	3,989	10,045	7,207	654
		1970	3,922	4,238	12,590	9,311	430
		1971					
		1972 _p	4,404	4,262	11,975	7,201	313
32	Transport Equipment ..	1969	2,097	2,356	4,074	5,499	496
		1970	2,372	2,563	4,257	5,960	611
		1971					
		1972 _p	2,752	2,940	5,079	7,531	550
33	Other Industrial Machinery and Equipment and House- hold Appliances	1969	1,550	1,515	4,451	4,322	353
		1970	1,420	1,492	4,174	3,953	210
		1971					
		1972 _p	1,507	1,674	5,441	6,273	295
34	Total Miscellaneous Manu- facturing	1969	237	250	584	480	285
		1970	195	274	743	650	110
		1971					
		1972 _p	525	845	1,282	1,435	169
	Total Manufacturing ..	1969	94,640	104,735	299,739	197,464	35,080
		1970	98,911	100,904	317,546	226,083	49,443
		1971					
		1972 _p	107,925	117,104	359,189	245,036	25,682

(a) Australian Standard Industrial Classification number.

(b) No census held covering 1970-71.

Tasmanian-Australian Comparison

Using 1968-69 as the base: Australian employment in manufacturing in 1971-72 was 3.5 per cent greater whereas the corresponding Tasmanian employment had decreased marginally. Again with 1968-69 as base: 'value added' for Australian manufacturing in 1971-72 was 29.8 per cent higher; the corresponding Tasmanian increase was 24.1 per cent.

The Tasmanian share in 1971-72 of Australian employment in manufacturing was 2.37 per cent; and of Australian 'value added' in manufacturing, 2.52 per cent.

Manufacturing by Statistical Division and Major Urban Areas

The next table shows, as a time series, the chief measures of manufacturing operations distributed according to broad region:

Manufacturing Establishments: Main Item by Statistical Division

Main Items	Unit	Year Ended 30 June (a)	Statistical Divisions			Tasmania
			Hobart and Southern	Northern	Mersey-Lyell	
Number of Establishments	no.	1969	416	327	208	951
		1970	409	326	210	945
		1971				
		1972 _p	396	327	208	931
Employment (b)—Males	no.	1969	10,741	7,242	6,909	24,892
		1970	11,182	7,333	6,856	25,371
		1971				
		1972 _p	10,545	7,462	6,852	24,859
	Females	1969	2,343	2,447	1,392	6,182
		1970	2,402	2,583	1,404	6,389
		1971				
		1972 _p	2,177	2,518	1,382	6,077
	Persons	1969	13,084	9,689	8,301	31,074
		1970	13,584	9,916	8,260	31,760
		1971				
		1972 _p	12,722	9,980	8,234	30,936
Wages and Salaries ..	\$'000	1969	40,115	27,586	27,364	95,065
		1970	44,328	29,218	28,561	102,107
		1971				
		1972 _p	48,530	36,031	36,146	120,708
Value Added	\$'000	1969	79,018	62,404	56,043	197,464
		1970	93,534	66,232	66,316	226,083
		1971				
		1972 _p	96,877	73,487	74,672	245,036
Fixed Capital Expenditure	\$'000	1969	18,549	4,957	11,578	35,080
		1970	15,580	4,897	28,967	49,443
		1971				
		1972 _p	7,920	15,082	2,680	25,682

(a) No census held covering 1970-71.

(b) Includes working proprietors; figures are average over whole year.

The next table gives principal manufacturing details for Urban Hobart and Urban Launceston.

Manufacturing Statistics: Urban Hobart and Urban Launceston

Year Ended 30 June	Number of Establish- ments at 30 June	Employment (Including Working Proprietors)—Average Over Whole Year			Wages and Salaries (\$'000)	Value Added (\$'000)
		Males	Females	Persons		
URBAN HOBART						
1969	272	8,765	2,090	10,855	33,341	60,305
1970	282	8,997	2,168	11,165	36,798	73,494
URBAN LAUNCESTON						
1969	202	5,208	2,226	7,254	19,303	34,474
1970	201	5,138	2,361	7,499	20,419	38,038

Geographical Distribution of Classes of Industry

The next series of tables, containing the principal manufacturing variables, is a regional cross-classification by industry sub-divisions for the year ending 30 June 1970:

Manufacturing by Statistical Division and Type of Industry, 1969-70

Industry Sub-division		Establishments Operating at End of June	Employment (Including Working Proprietors)—Average Over Whole Year			Wages and Salaries	Value Added
Asic Code	Description		Males	Females	Persons		
		no.	no.	no.	no.	\$'000	\$'000

HOBART STATISTICAL DIVISION

21, 22	Food, Beverages and Tobacco	56	2,129	1,065	3,194	10,326	19,355
23	Textiles	5	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
24	Clothing and Footwear ..	5	57	114	171	344	422
25	Wood, Wood Products and Furniture	91	895	115	1,010	2,684	4,208
26	Paper and Paper Products, Printing	27	1,929	317	2,246	7,974	18,288
27	Chemical, Petroleum and Coal Products	8	787	33	820	3,031	6,248
28	Non-Metallic Mineral Products	14	316	40	356	1,339	2,791
29	Basic Metal Products ..	8	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
31	Fabricated Metal Products	40	744	129	873	2,683	4,709
32	Transport Equipment ..	12	117	4	121	326	484
33	Other Industrial Machinery and Equipment	34	530	112	642	2,097	2,749
34	Miscellaneous Manufacturing	13	101	12	113	264	353
	Hobart Division ..	313	10,437	2,263	12,700	42,175	87,048

SOUTHERN STATISTICAL DIVISION

21, 22	Food, Beverages and Tobacco	21	129	102	231	437	604
25	Wood, Wood Products and Furniture	68	477	12	489	1,027	3,018
26	Paper and Paper Products, Printing	3	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
27	Chemical, Petroleum and Coal Products	1	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
31	Fabricated Metal Products	1	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
32	Transport Equipment ..	..	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
33	Other Industrial Machinery and Equipment	2	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
	Southern Division	96	745	139	884	2,153	6,486

Manufacturing by Statistical Division and Type of Industry, 1969-70—continued

Industry Sub-division		Establishments Operating at End of June	Employment (Including Working Proprietors)—Average Over Whole Year			Wages and Salaries	Value Added
Asic Code	Description		Males	Females	Persons		
			no.	no.	no.			$'000	$'000

NORTHERN STATISTICAL DIVISION

21, 22	Food, Beverages and Tobacco	58	1,168	282	1,450	4,271	10,485
23	Textiles	11	1,111	1,647	2,758	6,166	10,434
24	Clothing and Footwear ..	7	51	131	182	357	501
25	Wood, Wood Products and Furniture	142	1,374	77	1,451	3,906	8,300
26	Paper and Paper Products, Printing	13	410	120	530	1,838	3,215
27	Chemical, Petroleum and Coal Products	5	52	7	59	216	491
28	Non-Metallic Mineral Products	19	207	10	217	716	1,425
29	Basic Metal Products ..	3	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
31	Fabricated Metal Products	31	516	58	574	1,789	3,215
32	Transport Equipment ..	11	946	164	1,110	3,324	5,468
33	Other Industrial Machinery and Equipment	20	187	22	209	619	974
34	Miscellaneous Manufacturing	6	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
	Northern Division	326	7,333	2,583	9,916	29,218	66,232
	Statistical Sub-divisions—						
	Tamar	278	6,929	2,517	9,446	27,929	63,710
	North Eastern ..	48	404	66	470	1,289	2,522

MERSEY-LYELL STATISTICAL DIVISION

21, 22	Food, Beverages and Tobacco	54	1,233	458	1,691	5,265	12,778
23	Textiles	3	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
24	Clothing and Footwear ..	1	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
25	Wood, Wood Products and Furniture	90	1,654	88	1,742	5,186	9,856
26	Paper and Paper Products, Printing	15	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
27	Chemical, Petroleum and Coal Products	4	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
28	Non-Metallic Mineral Products	15	456	22	478	1,928	5,761
29	Basic Metal Products ..	3	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
31	Fabricated Metal Products	16	123	23	146	436	1,385
33	Other Industrial Machinery and Equipment	4	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
34	Miscellaneous Manufacturing	5	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
	Mersey-Lyell Division	210	6,856	1,404	8,260	28,561	66,316
	Statistical Sub-divisions—						
	North Western ..	197	6,687	1,392	8,079	27,904	60,291
	Western	13	169	12	181	657	6,025

TASMANIA

	Total Manufacturing ..	945	25,371	6,389	31,760	102,107	226,083
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Non-comparability

Direct comparisons with figures for the years preceding 1968-69 are not possible because of changes in the census units, the scope of the census and the items of data.

Attention is called to one major change, in 1968-69, in scope, namely the exclusion of electricity and gas production; in tables for previous years this sector appeared as Class XVI Heat, Light and Power. Details of establishments classified to this sector appear in the next section of this Chapter. 'Value added' in the tables of this section is conceptually allied to the old 'value of production' but the difference in definition prevents direct comparison of 1968-69 and later figures with those for previous years.

Tasmania in Comparison with Other Australian States

A comparison of Tasmanian manufacturing activity with that of the other Australian States and Territories is shown in the following table. Applying the appropriate population relativity factors to the Tasmanian figures, it will be seen that, on most indicators Tasmania is relatively more industrialised than Queensland, Western Australia, Northern Territory and the Australian Capital Territory and approaches the level of South Australia.

Tasmania-Australia Comparison of Manufacturing Activity, 1969-70

State or Territory	Population Relativity (a)	Establishments	Wages and Salaries	Turnover (b)	Stocks at 30 June		Purchases, etc. (c)	Value Added
					1969	1970		
N.S.W. ..	11.6	no.	\$m	\$m	\$m	\$m	\$m	\$m
Vic. ..	8.8	14,060	1,791	8,279	1,336	1,448	5,013	3,378
Qld ..	8.8	11,917	1,501	6,998	1,197	1,294	4,322	2,773
S.A. ..	4.6	3,977	332	2,034	255	290	1,346	724
W.A. ..	3.0	3,103	386	1,762	301	336	1,083	714
Tasmania ..	2.5	2,787	208	1,028	135	153	626	419
N.T. ..	1.0	988	102	546	99	101	317	231
A.C.T. ...	0.2	69	4	19	2	3	12	8
	0.3	116	11	37	4	3	19	17
Total Australia	32.1	37,017	4,335	20,702	3,328	3,629	12,739	8,264

(a) Tasmania's total mean population for 1969-70 is expressed as 1.0; other State populations in proportion to 1.0.

(b) Sales, transfers out and other operating revenue.

(c) Purchases, transfers in and selected expenses.

CENSUS OF ELECTRICITY AND GAS ESTABLISHMENTS, NEW SERIES**Introduction**

In the section of this Chapter headed 'Factory Statistics, Prior to 1968-69', the table summarising factory production since 1911 includes Class XVI (Heat, Light and Power); in the 'old style' annual factory censuses, of which the last covered 1967-68, this class was confined to the production of electricity and gas and such operations were treated as a particular type of factory activity. For 1968-69 simultaneous economic censuses were undertaken in respect of electricity and gas production and distribution and four other sectors (manufacturing; retail trade; wholesale trade; and mining). In this section results of the 1969-70 census of electricity and gas establishments for Tasmania are given. (For a detailed description of the 1968-69 integrated economic censuses; see Appendix A of the 1972 *Year Book*.)

Definitions of Electricity and Gas Establishments

Basic Census Unit

The basic census unit, in general, now covers all the operations carried on under the one ownership at a single physical location. However, for electricity and gas, the basic census unit is an *exception* to the above general concept of the standardised unit. The nature of the activities of electricity and gas undertakings makes the single operating location basis unsuitable. In the Tasmanian situation, for example, the householder paying a bill for power may draw his electricity from any combination of 20 or so stations in an integrated grid; in brief, 'sales' are not recorded against individual stations but are necessarily credited to the grid as a whole.

The special establishment unit in this census consists of *all locations*, including administrative offices and ancillary units, mainly concerned with the production and/or distribution of electricity or gas, operated by the one undertaking in the one State.

Effects of New Classification

The use of the above new definition is one of the reasons for the number of electricity and gas establishments in 1969-70 being considerably less than those of earlier years. A second cause is the exclusion from 1968-69 of some generating stations operated by enterprises for their own use (only if their value of sales and transfers of electricity exceeded \$100,000 were such stations included in the electricity census).

Data Concepts

It should be stressed that pre-1968-69 figures for the 'Heat, Light and Power' Class of industry referred only to production; from 1968-69, the electricity and gas census covers not just production but also distribution.

The new data concepts introduced in the 1968-69 census are set out in the previous section of this Chapter (Manufacturing Statistics from 1968-69) and the items and definitions are those used also in the electricity and gas census.

Results, 1969-70

Direct comparisons with figures for years prior to 1968-69 are not possible because of changes in the census units, the scope of the census and the items of data.

Census of Electricity and Gas Establishments (a), 1969-70: Summary

Establishments Operating at 30 June 1970	no.	6
Persons Employed (Average Over Whole Year)—		
Males .. .. .	..	2,552
Females .. .. .	..	202
Persons .. .. .	..	2,754
Wages and Salaries	\$m	11.97
Turnover .. .. .	..	39.01
Stocks at 30 June—		
1969 .. .. .	..	4.7
1970 .. .. .	..	5.2
Purchases, Transfers In and Selected Expenses .. .. .	..	0.9
Value Added.. .. .	..	38.7

(a) Establishments producing and/or distributing. See special definition of *establishment* in preceding text.

The following table gives a comparison between Tasmania and the other Australian States. Applying the appropriate population relativity factors to Tasmanian figures it can be seen that Tasmania compares favourably on most indicators.

Tasmania-Australia Comparison of Census of Electricity and Gas Establishments (a), 1969-70

State (b)	Popula- tion Rela- tivity	Estab- lish- ments	Persons Em- ployed	Wages and Salaries	Turn- over (c)	Stocks at 30 June		Pur- chases, etc. (d)	Value Added
						1969	1970		
	no.	no.	no.	\$m	\$m	\$m	\$m	\$m	\$m
N.S.W.	11.6	85	29,257	125.0	624.1	48.1	50.2	294.7	331.6
Vic.	8.8	21	18,890	82.0	345.6	27.0	28.1	111.2	235.6
Qld	4.6	28	9,239	34.1	167.6	12.1	11.4	66.7	100.2
S.A.	3.0	18	5,761	22.5	90.7	6.6	6.4	26.1	64.3
W.A.	2.5	57	3,889	14.8	61.5	6.2	6.9	18.2	44.0
Tasmania	1.0	6	2,754	12.0	39.0	4.7	5.2	0.9	38.7
Total Australia ..	32.1	222	70,474	293.3	1,342.1	105.4	109.0	524.5	821.3

(a) Establishments producing and/or distributing. See special definition of *establishment* in preceding text.

(b) In some States electricity is produced by undertakings other than those which distribute it. In these States sales of electricity are duplicated due to the inclusion of bulk sales to distributors in addition to retail sales. Sales figures for N.T. and the A.C.T. are not available for separate publication; therefore, the Territories have been included only in the total.

(c) Sales, transfers out and other operating revenue.

(d) Purchases, transfers in and selected expenses.

INDUSTRIAL DEVELOPMENT

Source of Data

In normal circumstances, the Bureau of Census and Statistics does not publish information relating to any single enterprise or establishment, and treats any such information it collects as strictly confidential. It does, however, publish statistical aggregates where they do not directly or indirectly reveal the operations of any single informant.

A description of industrial growth without mentioning individual organisations is not very illuminating; therefore, the *State Directorate of Industrial Development and Trade* has prepared the following section and accepts responsibility for the information given, while in the section describing 'State Industries' the firms included have provided the information published.

Primary-Secondary Relativity

Prior to World War II, there were few large manufacturing establishments in Tasmania. The economy of the State was dominated by primary industries which, in 1938-39, accounted for 60 per cent of the net value of production of all recorded industries.

By today's criteria, pre-war operations of manufacturing establishments were on a small scale but some enterprises have since emerged as national leaders in particular fields. Despite the limitations of geographical isolation and a relatively small domestic market, the State went through a period of important industrial development following World War II; the cessation of hostilities released a world-wide demand for goods and services, and a number of new Tasmanian factories were established to take advantage of the situation.

Post-war expansion of factory activity has made the State an important supplier of manufactured goods and processed materials. Major factories which have been established since World War II include producers of chemicals, wood pulp, textiles, processed foods, industrial equipment, refined aluminium, manganese alloys, iron ore pellets and woodchips.

Tasmania as a Site for Industry

The State has certain advantages which have attracted new industrial enterprises. The principal factors are:

Hydro-Electric Power: This is fully described elsewhere in this Chapter and it is therefore sufficient to mention the need of power-intensive industries for cheap bulk electricity (e.g. in metal smelting and refining, heavy chemicals, paper and paper pulp making).

Water Resources: In some parts of the world, water resources are inadequate; shortage of water and the high cost of conservation, re-use and 'purification' have become major problems in the expansion of industry. This is definitely not the situation in Tasmania where water is abundant. The terrain favours the economical construction of high-level storages, while run-of-the-river pumping schemes are feasible at many sites.

Industrial Land, Harbours and Shipping: Cheap land, and its proximity to deep-sea ports are factors influencing the expansion of industry in the four main centres of population: Hobart, Launceston, Burnie and Devonport.

The associated ports are served by overseas ships and by interstate ships using modern roll-on roll-off and containerised cargo techniques.

Legislation and Government Assistance: The policy of the State Government is to promote the establishment and growth of secondary industries in Tasmania, as provided by the *Industrial Development Act 1954*. This Act is administered by the Director of Industrial Development and Trade under the Minister for Industrial Development.

The Directorate gives advice, information and assistance on a wide range of important industrial matters, and is empowered to provide financial assistance, including loan guarantees, with the object of helping establish new industries or expanding those in operation.

In common with manufacturers in other Australian States, Tasmanian manufacturers may be granted tariff protection by the Commonwealth, the policy being to assist efficient producers to compete with those in other countries.

Major Industries

The following lists major factories operating in Tasmania:

Alginates (Aust.) Co. (Orford): Operations commenced in 1964, using a special process for extracting sodium alginate from sea kelp. Alginate is a colloid agent, used in film forming, jelling, stabilising, suspending and emulsifying processes. The kelp is obtained from the eastern shoreline in specially designed barges.

Associated Pulp and Paper Mills: This group of companies is a major Australian integrated forests products complex and Australia's principal producer of fine printing and writing papers, magazine papers and coated papers. In Tasmania the company operates major manufacturing complexes at three centres: (i) *Burnie*—where it commenced paper production in 1938; present annual capacity of the Burnie plant is 119,000 tons. Hardboard is also produced at the Burnie complex by the subsidiary Hardboards Australia Ltd. (ii) *Wesley Vale*—In 1970 the first stage of an integrated pulp and paper complex was completed when the first paper machine commenced production. The machine has an annual capacity of 35,000 to 40,000 tons of paper. Production at Wesley Vale is mainly of coated and uncoated magazine papers. A particle board factory, run by the subsidiary Burnie Timber Pty Ltd, also operates at Wesley Vale; annual production exceeds 26m square feet. (iii) *Long Reach*—A.P.P.M. completed its woodchip plant in mid-1972 and made its first export shipment in late 1972. The company has two contracts for the export of woodchips to Japan: (a) 600,000 tons per annum from 1972 to 1983; (b) an additional 300,000 tons per annum from 1973 to 1978.

Australian Newsprint Mills Ltd (Boyer): The first paper machine, with a 27,000 ton capacity per annum, began operating in 1941; a second machine, installed after the war, increased capacity to 94,000 tons of newsprint per annum; the third machine was commissioned in 1969. 1971 production was 175,000 tons of newsprint (A.N.M. is Australia's sole producer of newsprint). Recent extensions gave the plant an annual capacity of 200,000 tons of newsprint for 1973. The company meets approximately 45 per cent of Australia's newsprint requirements.

Australian Paper Manufacturers Ltd (Port Huon): Production began in 1963, with an initial capacity of 25,000 tons of pelletised wood pulp per annum; capacity has now been lifted to 75,000 tons. Further expansion of plant capacity is underway.

Wander (Aust.) Pty Ltd (Quoiba): Established in Tasmania in 1942, the Quoiba unit has become one of the largest 'Ovaltine' factories in the world. The factory is equipped to manufacture all types of malt extract to specification, as well as a range of dietetic products.

Cascade Group of Companies: Operates the Cascade Brewery in Hobart (established in 1824), the Boag's Esk Brewery in Launceston and cordial, fruit juice and apple cider making companies. Substantial additions were made to the 'Mercury' cider production complex at South Hobart during 1973.

Cadbury Schweppes Australia Ltd (Claremont): In 1921 an association of three British confectioners established their Australian plant at Claremont, near Hobart. Today, the plant is the largest cocoa and confectionery factory in Australia. Following a takeover in 1967, MacRobertson (Australia) Ltd became a subsidiary of Cadbury Fry Pascall Australia Ltd. In 1971 Cadbury Fry Pascall Australia Ltd merged with Schweppes (Australia) Ltd.

Coats Patons (Aust.) Ltd (Launceston and George Town): This company first produced yarns in Launceston in 1923 with a staff of 130. Steady expansion followed, involving expenditure of more than \$7m in recent years, and the company now employs about 1,900 at its Launceston and George Town mills.

Comalco Aluminium (Bell Bay) Ltd: The production of aluminium commenced in 1955 at a plant erected with Commonwealth Government funds (with State Government participation). The present company was formed in 1960 to buy out the Commonwealth's interest. Production capacity has grown from 13,000 to 94,000 tons of primary aluminium a year. Current production is approximately 83,000 tons per annum.

Comalco Aluminium Powder Pty Ltd (Bell Bay): This plant was established in 1968 to produce aluminium powder and paste and is capable of supplying the whole of Australia's requirements. Plant capacity is approximately 700 tons per annum.

Commonwealth Industrial Gases Ltd: Over the last two years the company has completed developments in Tasmania exceeding \$1.5m. Recent additions include a new liquid oxygen and liquid nitrogen plant at Launceston, new merchandising centres at Burnie and Launceston and a 400-ton L.P.G. storage and filling terminal at Self's Point, Hobart.

Edgell (Division of Petersville Ltd) (Devonport and Ulverstone): Is Tasmania's leading producer of processed vegetables. Combined factory intake of vegetables for both centres, is about 60,000 tons per annum.

Electrolytic Zinc Company of Asia Ltd (Risdon): Established in 1916, the factory at Risdon is now one of the largest electrolytic zinc plants in the world. A \$32m expansion programme was completed in 1971. The company produces zinc and zinc alloys, cadmium, sulphuric acid, superphosphate, sulphate of ammonia and aluminium sulphate. Output from the company's mining complex at Rosebery is 600,000 tons of silver-lead-zinc ore per annum. Production of the company's principal metal—refined zinc—has doubled since 1944-45; output now approaches 555 tons per day. The zinc plant supplies a large proportion of Australia's total requirements.

Fish Protein Concentrates (Tas.) Pty Ltd (Triabunna): The company has constructed a fish processing plant at Triabunna on the East Coast. Jack mackerel will be the principal species caught and processed. Production commenced in August 1973.

Goliath Portland Cement Company Ltd (Railton): Formed in 1928 to take over a small plant, the company began production in 1930 with an output of 65,000 tons of cement a year. Annual production capacity increased to 100,000 tons by the end of the decade and was 200,000 tons by 1956. Plant expansion in 1967 lifted production capacity to over 500,000 tons a year. A fully automated cement mill was commissioned in 1970. In July 1972 the company took over Besser Holdings Ltd, however, the Besser Company continued to operate as a separate entity within the Goliath Group.

James Nelson (Aust.) Pty Ltd (Launceston): Established in 1951, the Company now produces a wide range of fabrics for women's and men's apparel, rainwear, household furnishings, type-writer ribbons, computer tapes, decorative ribbons, banners and blanket bindings, as well as fabrics for industrial uses. It also specialises in parachute fabrics. The Company is a member of the Courtauld's Group.

J. C. Hutton Pty Ltd (Launceston): Commenced operations in Tasmania in 1906; produces ham, bacon, smallgoods and is a leading meat exporter. Annual capital expenditure over the past five years has averaged about \$100,000.

Kelsall and Kemp (Tas.) Ltd (Launceston): From small beginnings in 1921, the company has become a leading producer of woven fabrics in the Australian textile industry. During 1973 eight shutless looms were installed at a cost of approximately \$175,000.

Kraft Foods Ltd (Scottsdale): Kraft Foods Ltd acquired Dewcrisp Products Ltd, manufacturers of dehydrated vegetables and frozen and canned peas in 1961. Commencing in 1964 a long-range expansion programme, based on the manufacture of instant mashed potatoes, was introduced. The company now produces a wide range of dehydrated vegetables—recent additions include quick cooking peas and beans.

Lactos Pty Ltd (Burnie): Installation of a new \$1.1m manufacturing unit to supply 1,000 tons of Gouda cheese to Japan annually has been completed.

Longford Meat Company (Longford): Produces boned beef and mutton for export. The company employs 150 persons.

Northern Woodchips Pty Ltd (Long Reach): The Long Reach plant is designed with capacity in excess of firm contractual commitments as a provision against future growth in the woodchip export market. Present contracts are for the export of nine million tons of woodchips over a 15-year period. The first export shipment took place in 1973.

North-West Acid Pty Ltd (Burnie): Established in 1970 to process pyrites from the west coast, the \$14m plant has an annual production capacity of some 420,000 tons of sulphuric acid.

Repco Bearing Company Pty Ltd (Launceston): In 1949 this company was established to manufacture engine bearings for the Australian automotive spare parts trade. The factory has since expanded and diversified the range of products.

Savage River Mines (Pickands Mather and Co. International Managing Agent): Established at a cost of \$80m, the Port Latta iron ore pelletising plant commenced operation in 1968. Following recent expansion, production is expected to reach 2,500,000 tons of pellets per year. The entire production is sold to Japanese steel mills.

S. P. Holyman and Sons Pty Ltd (Devonport): Is one of Tasmania's principal slaughterers of livestock for export. Employment is about 110 persons.

Tasmanian Electro Metallurgical Co. Pty Ltd (Bell Bay): The Broken Hill Co. Pty Ltd established a plant in 1962 to produce high carbon ferro-manganese for the Australian steel industry, with an initial annual output of 26,000 tons. Production capacity is now approximately 75,000 tons of manganese alloys per year.

Tasmanian Pulp and Forest Holdings Ltd: In early 1971 the company made its first export shipment of woodchips from its Triabunna plant to Japan. The company has a 15-year contract to supply 600,000 tons of woodchips per annum to Japan.

Tasman Scottish Carpet Manufacturing Pty Ltd (E. Devonport): The first piece of Tasmanian carpet was woven in 1961. Since then a spinning and dyeing plant has been installed (1965) and additional looms have been progressively introduced. In 1972 a five-year expansion programme was commenced to double production capacity.

Tas. Meats Limited (Somerset): A \$0.8m beef processing establishment was completed in early 1973. The new abattoir and boning room is designed with an initial capacity of 160 cattle per day.

The Stanley Works Pty Ltd (Moonah): This company was incorporated in 1963 and is jointly owned by the Stanley Works, United States of America, and the Titan Manufacturing Company Pty Ltd (a B.H.P. subsidiary). The Australian member of the new company, Titan Manufacturing Company, in 1945 commenced operations in Hobart making nails and barbed wire, later diversifying to produce wood chisels. The Stanley Works Pty Ltd now produces a wide range of hand tools.

Tioxide Australia Pty Ltd (Burnie): Production of titanium dioxide pigments began in 1948 with a plant capacity of 1,500 tons per annum. Current production capacity is 25,000 tons.

Tootal of Australia (Devonport): First operations in 1952 used piece-goods imported from the U.K. to make textiles. In 1955 plant capacity was increased to include the weaving, dyeing and finishing of locally-produced fabrics; additional high-speed weaving machines were installed in 1968 and 1971.

United Milk Products (Smithton): Is one of the State's principal producers of butter, milk-powder, casein and cheese. Annual butter production approaches 4,000 tons. Casein is exported overseas to Japan, U.S.A. and Europe. The company also operates an abattoir—it is a leading bacon producer.

Universal Textiles Australia Ltd (Derwent Park): Operations commenced in 1947; the processes include the weaving, dyeing; printing and finishing of silk, nylon, terylene, rayon and cotton. During 1971 new printing and type dyeing machines and new fabric preparation equipment worth approximately \$0.2m were installed. The company is now part of the Textile Division of the Dunlop Australia Group of Companies.

SELECTED TASMANIAN INDUSTRIES

The following account of Tasmanian manufacturing activities has been prepared from information made available by the companies concerned.

Tioxide Australia Pty Ltd

History

Australian Titan Products Pty Ltd (name changed to Tioxide Australia Pty Ltd in September 1972) was formed in 1937 as a wholly-owned subsidiary of British Titan Limited, England, to supply titanium dioxide pigments to the Australian market. With the intervention of the 1939-1945 war, however, construction of the present works at Burnie did not commence until 1946. This plant was commissioned in December 1948 with an initial capacity of 1,500 tons per year. However, demand for the company's products proved so great that the plant has been expanded almost continuously to its present capacity of 25,000 tons per year—involving a total fixed asset investment of \$13m. Although strictly a 'one product' undertaking, twelve different grades of pigment are produced to satisfy the requirements of the various users.

To provide the major raw material feedstock, ilmenite, two subsidiary mining companies were formed and operate in Western Australia. These are Ilmenite Pty Ltd and Western Mineral Sands Pty Ltd, which not only supply all of the ilmenite required at Burnie, but also export large quantities to the United Kingdom and Europe.

The Manufacturing Process

The two major raw materials used at Burnie to produce titanium dioxide pigments are ilmenite and sulphuric acid. The ilmenite is shipped in bulk cargoes of approximately 10,000 tons from Bunbury, W.A., while the acid is supplied in rail tankers from the North-West Acid Pty Ltd plant in Burnie.

The ilmenite, which consists essentially of oxides of titanium and iron, is ground to a fine powder and then reacted with strong sulphuric acid. After this reaction, the constituents of the sand can be dissolved in water. The solution is filtered, then cooled, and part of the iron removed. The solution is boiled under rigorously controlled conditions to ensure that the titanium dioxide precipitated is in the right crystalline form with particles of the correct size. All impurities are removed by washing on a battery of filters.

The titanium dioxide paste is passed through a rotary kiln and calcined by heating to temperatures of 950°C. The minute particles build up to about one seventy-thousandth part of an inch, and gather together in small rounded aggregates of various sizes in the kiln.

The final step in the process is a very intensive grinding of these aggregates to a fine smooth powder. Where necessary, further treatment confers special properties on the pigment, such as durability, ease of blending in polyvinyl chloride compounds and so on.

Although the basic method of manufacture is simple, the production of high quality titanium dioxide pigments is a lengthy process, calling for considerable technical expertise and control. From the start of processing to final product takes about three weeks, and during this time all stages are subjected to constant observation and testing. The control laboratory technicians carry out over 2,500 tests every day and work on a 24-hour-a-day schedule every day of the year.

Product Uses and Markets

Titanium dioxide is a powerful, brilliant white pigment. Chemically inert, it has great resistance to heat and light, and is used in a wide variety of products. Apart from paints, which take more than half of the output, these include linoleums, paper, rubber, textiles, plastics, artists' colours, printing inks, ceramics, soaps, silks, cosmetics and even toothpastes and food-stuffs.

The Burnie products are world renowned for their quality and the plant has been exporting for more than a decade, mainly to South-East Asia. Export sales alone result in a net overseas income to Australia of over \$3,000,000 per annum.

Employment

Approximately 450 Tasmanians are employed at the Burnie factory and salaries and wages exceed \$2,500,000 per annum. The company is justly proud of its safety record and at the end of November 1972 had completed 554 consecutive days free from a lost-time injury of any nature.

The Cascade Group of Companies

History

The enterprise, from which the Cascade Brewery Group grew, was founded by Peter Degraives. Degraives established a timber and flour milling venture on a Crown land grant on the foothills of Mt Wellington. This area was known as the Cascades and Degraives' property became the 'Cascade Estate'. In 1824 Degraives added a brewery to his interests and in that year the first beer was produced. Since then beer production has stopped only once—briefly in early 1967 when much of the brewery was destroyed in the disastrous bushfires.

Degraives died in 1852 and his sons continued the brewery business for a further 30 years until the Cascade Estate and numerous hotels were sold to Messrs J. W. Syme, C. W. Chapman and J. Aikman. The following year, 1883, the three men purchased another Hobart Town brewery and on 26 May floated the Cascade Brewery Company Ltd.

The next major step in the Company's history was the formation of Tasmanian Breweries Ltd in 1927, to manage the Cascade Brewery in Hobart and Boag's Esk Brewery in Launceston. This remains Tasmania's only brewery group, holding a large percentage of the State's market. Both breweries make draught beer, ale, lager and stout. Products are marketed in various sized bottles and cans. The Company also has extensive hotel interests and is a major manufacturer and merchandiser of fruit juices, soft drinks, cordials and cider.

The Cascade Group, through its wholly-owned subsidiaries, Cascade Cordials Pty Ltd and Port Huon Fruit Juices Pty Ltd, (acquired in November 1971), makes and markets a wide range of quality soft drinks, cordials, fruit juices and ciders (both alcoholic and non-alcoholic). In the fruit juice range the company's blackcurrant *Ultra C* has received wide recognition for its vitamin rich properties.

The Group's other merchandising activities are conducted by three subsidiary companies: Traders Pty Ltd and Burgess Bros Pty Ltd both in Hobart, and Irvine McEachern, in Launceston and Ulverstone. All are wine and spirit wholesalers. Burgess Bros also conducts a large wholesale grocery business.

But it is for production of high quality beer that the Cascade name is best known.

The Brewing Process

The production of beer involves four stages—malting, brewing, fermentation and conditioning.

Malting: Barley is cleaned to remove rubbish and small grains and then steeped (soaked in water) till it begins to germinate. Germination takes place under controlled atmosphere conditions. Kilning follows in which growth is stopped before the acrospire (green shoot) emerges from the back of the corn; it is then heat dried and stored.

Brewing: The malt corn is crushed and mashed with hot water, and the liquid malt extract is filtered from the residual grains. Cane sugar (the only non-Tasmanian raw material used in the process) is added. The resultant extract plus sugar is then boiled with hops, which provide the bitter flavour and help create a foaming head on the beer and increase head retention. The liquid, now called wort, is strained and cooled.

Fermentation: The cooled wort is transferred to a fermenting tank and yeast added. When the fermentation ceases and the liquid, now beer, is cooled it is transferred to cold storage tanks to condition.

Conditioning: After conditioning the beer is racked as draught beer into barrels or bottled.

The Cascade Group's breweries make a major contribution to rural industry, using almost the entire Tasmanian barley crop and in excess of 40,000 lb of local hops each year.

A similar contribution is made by the Group's fruit juice, softdrink and cider making activities. More than 15,000 tons of apples and some 1,000 tons of berry fruits are needed for current production and intake is rising steadily.

Fruit Juice Production

The fresh fruit is weighed and washed, put through a milling process and given varying pre-extraction treatment, depending on the type of fruit. Extraction is by a fully-automatic Swiss 'Bucher Guyer' hydraulic press. Juice from the press is clarified, preservatised (if necessary) filtered and stored, either as single strength or in degrees of concentrate depending on its intended end use. Main fruits used are apples, blackcurrants, raspberries, loganberries, red currants, cherries and rose hips.

The Cascade range of fruit juice cordials are made by adding varying amounts of juice and sugar syrup, with or without added flavourants. Carbonated (or fizzy) drinks are produced by adding flavoured, coloured sugar syrup to carbonated water (i.e. water saturated in carbon dioxide). Highly specialised equipment is used to pack carbonated softdrinks into bottles and cans. Unlike fruit juice cordials, which require dilution, carbonated drinks are ready for use at point of sale.

Concentrated apple juice, produced by both Cascade and Port Huon Fruit Juices, is used in baby foods, jellies and as a base in carbonated drinks throughout Australia. Sales tax exemptions were available on softdrink manufactured if not less than five per cent Australian fruit juice was used. Apple concentrate can be treated to give the dual advantages of being virtually colourless and with little flavour.

Apple Cider Production

Cider making is a significant and growing part of the Group's operations. This is conducted on a seven acre site at South Hobart near the Mt Wellington foothills. Cascade Cordials Pty Ltd crushes the apples and extracts the basic juice for the Group's cider-maker Port Huon Fruit Juices. All types of ciders, alcoholic and non-alcoholic, from still to highly carbonated and including a premium product '*Venali*', known as the champagne of cider, and a quality cider vinegar are made by Port Huon.

Export Activity

The Cascade Group is a relatively small exporter. Exports range from blackcurrant *Ultra C* (to South-East Asia) to rose hip and apple concentrate (to Britain) and canned and bottled beer and also bottled cider to many markets, both within Australia and overseas.

Research

Modern, well-equipped laboratories offer splendid facilities at Cascade for the Group's research team.

Employment

The Cascade Group in Hobart and Launceston directly employs almost 700 men and women, and the brewery and other manufacturing operations provide indirect employment for several hundred more in primary industry, transport, and glass and can making industries.

GOVERNMENT HYDRO-ELECTRIC POWER

Introduction

Until 1971 Tasmania was unique among Australian States in that its electric power system was based exclusively on hydro-electric installations. In 1971 a thermal oil-fired station commenced operations at Bell Bay opening a new phase in the development of the generating system. Other Australian States rely principally on thermal plants while hydro-electric power, if available, is used only to supplement the basic supply. The Snowy River Hydro-Electric Scheme, which feeds power to the Victorian and N.S.W. grids, is not designed to cope with the base load demand in these two States, and its essential function is to provide the extra power necessary to meet peak loads, and also to supply irrigation water to the inland. The Tasmanian system, despite its lower installed capacity, produces more power than the Snowy Scheme.

The concentration on water as a source of power in Tasmania has resulted in the need to follow a policy of water conservation, even though the rainfall is usually adequate. Emphasis in the power developments has been on the creation of large storages and multiple use of the impounded waters e.g. water from Lake St Clair may pass through eight power stations before reaching the tidal waters of the Derwent River at New Norfolk.

Output and Capacity of Hydro-Electric System

The following table outlines the development of the Tasmanian generating system:

*Manufacturing, Electricity and Gas***Tasmanian Power Generating System**

Station	Year of Commission	Head (in Metres)	Generator Capacity (kW) (a)	Average Annual Output (Million kWh Units)
COMPLETED STATIONS				
Waddamana 'B'	1949	344	48,000	(b)
Tarraleah	1951	299	90,000	606
Butlers Gorge	1951	56	12,200	71
Trevallyn	1955	126	80,000	542
Tungatinah	1956	306	125,000	557
Lake Echo	1956	173	32,400	76
Wayatinah	1957	62	38,250	278
Liapootah	1960	110	83,700	459
Catagunya	1962	43	48,000	263
Poatina	1965	829	250,000	1,329
Tods Corner	1966	41	1,600	13
Meadowbank	1967	29	40,000	210
Cluny	1967	16	17,000	93
Repulse	1968	27	28,000	161
Rowallan	1968	49	10,450	37
Lemonthyme	1969	159	51,000	284
Devils Gate	1969	69	60,000	298
Wilmot	1971	251	30,600	127
Bell Bay (Stage 1)	1971	(c)	120,000	788
Cethana	1971	99	85,000	407
Paloona	1972	31	28,000	131
Fisher	1973	649	43,200	247
Total .. .. .	..	..	1,322,400	6,977

STATIONS UNDER CONSTRUCTION

Bell Bay (Stage 2)	1974	(c)	120,000	739
Gordon (Stage 1)	1976	186	288,000	1,466
Total	408,000	2,205

ALL STATIONS

Grand Total	1,730,400	9,182
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(a) Emergency gas turbine generating capacity: 20,000 kW at Bell Bay; 10,000 kW at Macquarie Point (Hobart) not included.

(b) Reserve plant only.

(c) Thermal station.

Hydro-Electric Development

The evolution of hydro-electric power development in Tasmania has been extensively dealt with in earlier *Year Books*; the following is a summary of the more important features of previous articles.

Early Development

Hydro-electric power for public use was first introduced in 1895 with construction of the 450 kW *Duck Reach* station on the South Esk River near Launceston. This was a purely municipal supply and work on Tasmania's State-wide system did not begin until 1911 with the exploitation of the Great Lake catchment waters and diversion of the Ouse and Shannon Rivers.

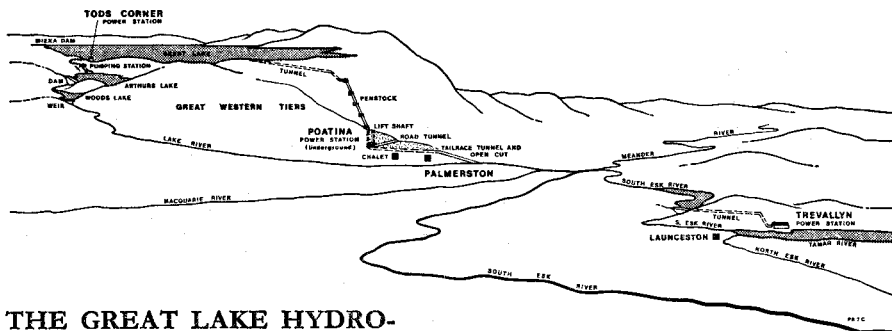
By May 1916 *Waddamana 'A'* station (7,000 kW), the first element of the Great Lake scheme, was commissioned. *Shannon* station was opened in 1934 and in 1944 the third element of the scheme, *Waddamana 'B'* station (48,000 kW) commenced generation. When *Poatina* station was commissioned in 1965, the *Waddamana 'A'* and *Shannon* stations were closed down, *Waddamana 'B'* being retained only for emergency and peak-load generation.

Subsequent Developments

(i) The *Tarraleah* scheme, drawing water from the artificial Lake King William, was commenced in 1934; the early elements of *Tarraleah* station first generated power in 1938. The capacity of *Tarraleah* was progressively expanded to 90,000 kW and the station was completed in 1951 with the installation of a sixth generator. *Butlers Gorge* station (12,200 kW), the second element of this scheme, commenced generation on the completion of the Clark Dam in 1951.

(ii) Built to regulate run-off from the extensive area between Great Lake and Lake St Clair, the 32,400 kW *Lake Echo* and 125,000 kW *Tungatinah* stations were commissioned in 1956.

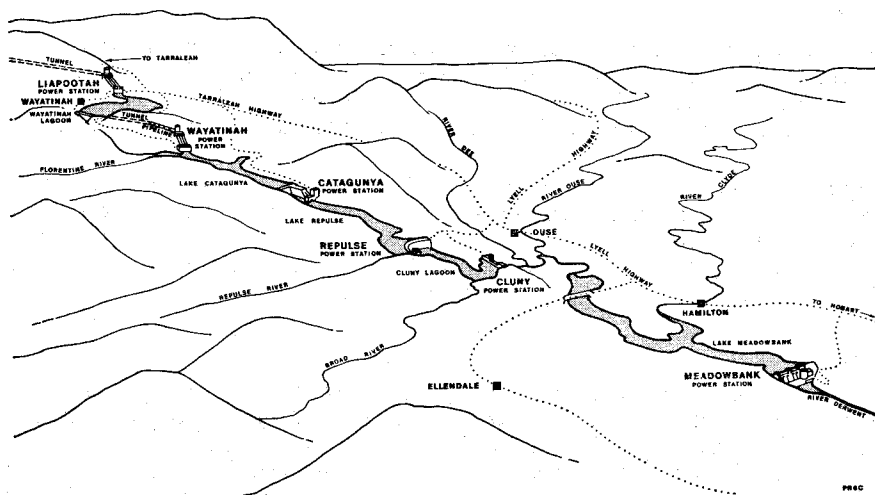
(iii) The *Poatina* station (250,000 kW), the largest of all the stations in the Tasmanian hydro-electric development, was completed in 1965. The station utilises the waters of Great Lake which have been diverted into the South Esk River system. The *Poatina* tailrace discharges into the South Esk River which feeds the run-of-the-river *Trevallyn* station (80,000 kW) located near Launceston. The following diagram shows the Great Lake scheme in detail:



THE GREAT LAKE HYDRO-ELECTRIC POWER DEVELOPMENTS

(iv) Two systems, the Upper and Lower Derwent Schemes, utilise the combined waters of the Derwent and its major tributaries, the Nive and Florentine. In the Upper Derwent system the *Wayatinah* station (38,250 kW) was completed in 1957, followed by the 83,700 kW *Liapootah* station (1960) and the 48,000 kW *Catagunya* station (1962). The lower Derwent stations *Meadowbank* (40,000 kW), *Cluny* (17,000 kW) and *Repulse* (28,000 kW) were completed during 1967 and 1968.

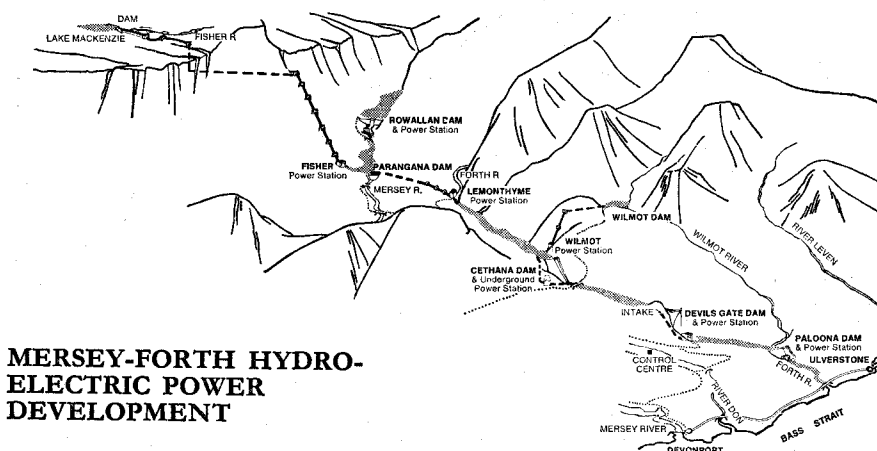
The following diagram shows the development of the power potential of the Derwent River catchment:



DERWENT RIVER POWER DEVELOPMENTS

(v) Construction of the Mersey-Forth power scheme in north-western Tasmania was completed in 1973. As shown in the next diagram the Fisher, Mersey, Wilmot and Forth Rivers have been exploited by a combination of seven power stations, seven large dams and three major tunnels together with associated penstocks, canals and flumes.

On the Mersey River, Lake Rowallan is of major importance as it provides the main storage of the development as a whole and regulates the water flow to the down-stream stations. Water flows through the *Rowallan* (10,450 kW) station and downstream to the Parangana Dam.



MERSEY-FORTH HYDRO-ELECTRIC POWER DEVELOPMENT

The second high-level storage in the scheme is derived from the development of Lake Mackenzie on the Fisher River. Water is taken by flume, canal, tunnel and pipeline to the *Fisher* (43,200 kW) station. Tailrace waters discharge into the Fisher River which joins the Mersey River just above the Parangana Dam. The Parangana Dam diverts waters of the Mersey and Fisher Rivers westwards by a three-mile tunnel and a penstock to the *Lemonthyme* (51,000 kW) station on the Forth River.

Downstream, the waters of the Wilmot River are diverted to the east by tunnel to the *Wilmot* station (30,600 kW) located on the Forth River above the Cethana Dam.

The combined flows of all four rivers (Fisher, Mersey, Wilmot and Forth) are then used for power generation at three more power stations, all situated in the Forth Valley at the foot of dams at *Cethana* (85,000 kW), *Devils Gate* (60,000 kW) and *Paloona* (28,000 kW).

All seven power stations are designed for fully automatic operation and are remotely controlled from a centre near Sheffield.

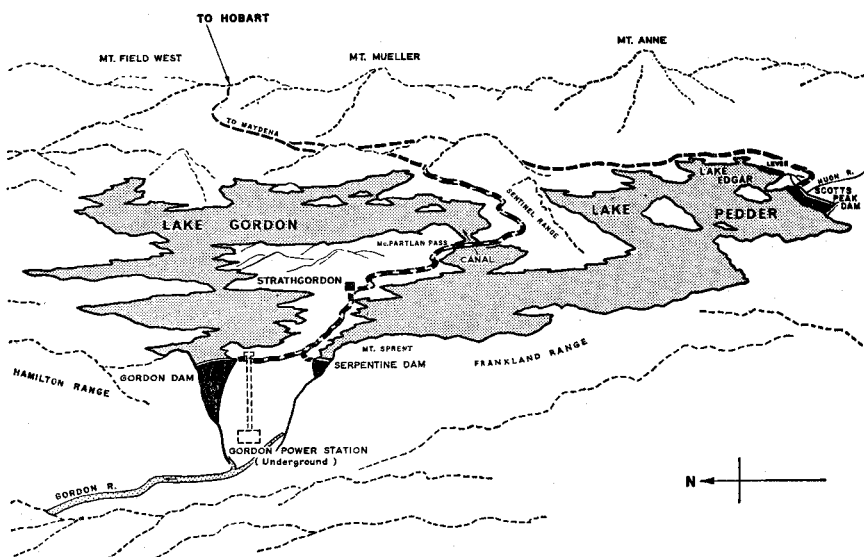
Present Developments

Gordon River Power Development—Stage 1: This development, to be completed by 1976, will create the largest water storage in Australia, seven to eight times the size of the Great Lake, and three times the size of Lake Eucumbene, the largest lake in the Snowy Mountains Scheme.

The Gordon River Power Development comprises two lakes, each with a surface area of about 520 square kilometres, joined by a canal. Lake Gordon will be created by a 137 metre high dam on the Gordon River. Two more dams, one on the Serpentine River and one on the Huon River, create an enlarged Lake Pedder.

From Lake Gordon water will be carried by a near vertical shaft to a power station 186 metres underground. The station will be reached from the top by lift and from the Gordon River Road by tunnel. It is designed to be operated by remote control from Hobart, 161 kilometres away.

The following diagram shows the essential features of the Gordon River power development:



GORDON RIVER POWER DEVELOPMENT

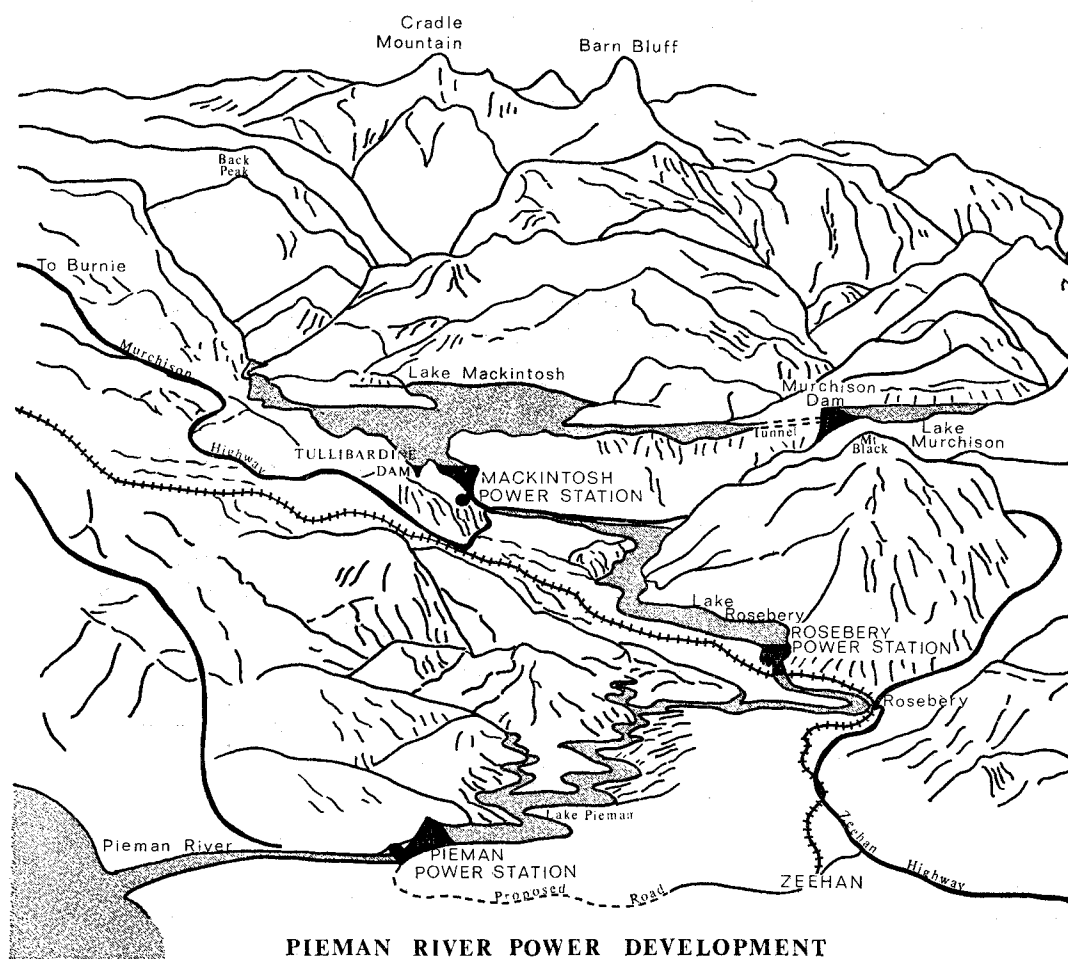
Bell Bay Thermal Station: Installation of the second stage of the Bell Bay oil-fired thermal station is scheduled for completion in 1974. Power generation from the first stage commenced in February 1971.

The station was originally designed to accommodate two steam driven 120,000 kW generators and many of the facilities installed as part of the first stage have sufficient capacity to satisfy the demands of the additional generator. The capital cost of installing the second generating set should therefore be substantially less than that of the first stage of construction.

Future Developments—Pieman River

In a Report presented to Parliament on 21 October 1970, the Hydro-Electric Commission announced a power development in the Pieman River catchment of the west coast. The total capital cost is estimated at \$134m; the total installed capacity at 420,000 kW; and the eventual average output at 1,770 kW hours per annum. Work on the scheme was expected to commence in late 1973 with construction of housing for the scheme's work force. In 1974 work will commence on access roads to the Tullibardine and Lake Murchison dam sites. Completion of the scheme is expected by 1985.

Location: The Pieman River flows from the confluence of the Murchison and Mackintosh Rivers, entering the sea below Corinna (see next diagram). The catchment area of 2,678 square kilometres is mostly rugged, mountainous Crown Land, experiencing annual rainfall between 2,300 mm and 3,560 mm. Only two per cent (62 square kilometres) of the catchment area will be inundated. No developed farmland, no known mineral deposits of commercial value and only very limited quantities of exploitable timber occur in the area.



PIEMAN RIVER POWER DEVELOPMENT

Power Stations: (i) *Mackintosh.* The scheme includes: a dam over 91 metres high on the Murchison River; a 2,072 metres long tunnel from Lake Murchison to Lake Mackintosh; a dam 76 metres high on the Mackintosh River about three kilometres downstream from the Sophia

River junction and the subsidiary Tullibardine Dam (24 metres high) together creating the main storage of the entire development; and a 72,000 kW power station below the Mackintosh Dam through which the combined flows of the Mackintosh and Murchison Rivers will pass.

(ii) *Rosebery*. Includes: a dam about 73 metres high, located on the Pieman River upstream from the Rosebery township, creating a lake extending up the Mackintosh River to the Mackintosh Power Station and up to the Murchison River to just downstream of the Murchison Dam; a power station immediately below the Rosebery Dam, installed capacity, 76,500 kW; the relocation of two kilometres of the Murchison Highway including new bridges over the Murchison and Mackintosh Rivers; and the relocation of about three kilometres of the Emu Bay railway, including a new bridge over the Pieman River.

(iii) *Pieman*. Comprises: a dam about 119 metres high located on the Pieman River immediately upstream from its junction with Stringer Creek; a subsidiary dam 15 metres high; a 270,000 kW power station, located at the junction with Stringer Creek; and a main access road, 36.2 kilometres long, from Zeehan to the dam site, about 10 kilometres upstream from Corinna.

Growth of Hydro-Electric System

The following table shows the growth of the system in recent years:

Hydro-Electric Commission: Operating Statistics

Year						Total Rating of Alternators	Peak Loading	Average Loading	Annual Load Factor (a)
						kW	kW	kW	per cent
1960	..	..	..	..	..	569,050	415,400	285,250	68.7
1961	..	..	..	..	..	569,050	438,400	297,080	67.8
1962	..	..	..	..	..	617,050	461,600	323,790	70.1
1963	..	..	..	..	..	617,050	550,300	378,000	68.7
1964	..	..	..	..	..	806,550	582,000	405,620	69.7
1965	..	..	..	..	..	807,550	593,700	427,580	72.0
1966	..	..	..	..	..	809,150	624,100	451,047	72.3
1967	..	..	..	..	..	866,150	636,900	445,490	69.9
1968	..	..	..	..	..	904,600	628,000	449,028	71.5
1969	..	..	..	..	..	1,015,600	735,500	556,249	75.6
1970	..	..	..	..	..	1,015,600	778,700	589,718	75.7
1971	..	..	..	..	..	1,251,200	832,300	633,838	74.9
1972	..	..	..	..	..	1,279,200	842,900	646,000	75.4

(a) Average loading as a percentage of peak loading.

Average Load Factor

The alternator rating (i.e. generator capacity) is necessarily much higher than the peak loading since some generating plant must be held in reserve against the possibility of breakdown.

A power system must be designed to meet both the peak loading (the demand component) and the average loading (the energy component). Peak loading tends to represent high demand for relatively short periods, i.e. it has relatively little energy associated with it. The obvious design and operational problem is to create sufficient capacity to meet peak loading and, at the same time, to encourage the use of power so that the highest possible average loading is obtained.

The Hydro-Electric Commission

The Hydro-Electric Commission is an autonomous statutory authority, responsible almost entirely for the conduct of its own affairs. The 'Minister Administering the Hydro-Electric Commission Act' is answerable to Parliament for the activities of the Commission, but the Commission is not directed by or responsible to the Minister as is a government department. In other words, the Commission is envisaged as a trading or business organisation, and the purpose of the legislation that created it was to remove it from day-to-day political control. The power exerted by Parliament is mainly financial, not over the ordinary revenue and expenditure of the authority, but over the supply of loan moneys for new capital works.

Two other restrictions on the Commission can be listed: (i) it cannot change its tariff charges for the supply of electricity to consumers except with the approval of the Governor-in-Council; and (ii) in certain of its dealings, such as in real estate, the Commission must obtain the approval of the Minister.

The status of the Commission was described thus by the High Court of Australia in a judgment delivered in 1950: 'In the eye of the law the corporation is its own master and is answerable as fully as any other person or corporation. It is not the Crown and has none of the immunities or privileges of the Crown. Its servants are not civil servants and its property is not Crown property.'

Organisation

Under the Commission, with its full-time Commissioner and three part-time Commissioners, there are five branches:

(i) *Civil Engineering Branch*. Responsible for: survey of water resources; design and construction of all civil works involved in power development and allied projects.

(ii) *Electrical Engineering Branch*. Responsible for: studies of load growth and system development; design and construction of all electrical engineering works in conjunction with the Civil Engineering Branch.

(iii) *Power Branch*. Responsible for: operation and maintenance of completed power developments; generation and transmission of power in bulk.

(iv) *Retail Supply Branch*. Responsible for: distribution of electricity to consumers; operation and maintenance of the distribution system; inspection of installations and equipment; consumer advisory activities; sale of electrical appliances; licensing of wiremen and contractors.

(v) *Secretarial*. Responsible for: general administrative business of Commission with sub-sections dealing with accounts, law, personnel, transport, stores and purchasing, medical services, central records, public relations and other services.

Technical Details

Generation

The total installed generator capacity of the Commission's 22 power stations is 1,322,400 kW. All stations generate alternating current at a frequency of 50 cycles per second. The power is stepped up at each station to the voltage required for transmission.

Transmission

Power is conveyed from the power stations by 220,000, 110,000 or 88,000 volts transmission lines to major sub-stations at various load centres. All power stations and major sub-stations are linked into a grid system thereby ensuring a reliable supply to all parts of the State.

Distribution

Power is distributed from the major sub-stations by a network of 44,000, 33,000, 22,000, 11,000 and 6,000 volt feeder lines from which power is stepped down at zone sub-stations to a lower feeder voltage and/or finally at distribution sub-stations to 415/240 volts for supply to individual consumers. Some consumers take supply at feeder voltage.

Bruny Island is connected to the main power supply by a submarine cable; King and Flinders Islands are partly supplied by diesel-generation stations operated by the Commission at Currie and Whitemark respectively.

Retail Distribution

In the early days of the Commission's operation, consumers of electrical power received it from three sources: from municipalities with their own generating capacity; from municipalities retailing power bought from the Commission; and from the Commission direct. Gradually uniformity was achieved, municipalities stopped generating and retailing and the one authority became the sole supplier, both of bulk power to industry and retail power to

homes, shops, businesses, etc. One effect has been uniformity in tariff charges for retail power so that the farmer on the most remote holding is charged no more than dwellers in the principal cities. Tasmania has achieved an Australian record figure for distribution of electrical power—it is estimated that nearly 99 per cent of homes and farms are now connected. Tariff charges are also the lowest in Australia.

The following table shows comparative average prices for power in the Commonwealth:

Price of Electric Power: Tasmania and Other States, 1971-72 (a)
(Cents per Kilowatt Hour)

State or Territory	Residential Sales	Commercial Sales	Industrial Sales	Average All Sales (b)
New South Wales	2.08	(c)	(c)	2.03
Victoria	2.02	3.12	1.70	2.09
Queensland	2.16	3.35	1.70	2.21
South Australia	1.71	2.84	1.70	1.93
Western Australia	2.41	(c)	(c)	2.39
Tasmania	1.60	2.72	0.64	0.87
Commonwealth Territories	2.00	(c)	(c)	2.43
Commonwealth (Average)	2.03	n.a.	n.a.	1.96

(a) Source: 'Statistics of the Electricity Supply Industry in Australia' (published by Electricity Supply Association of Australia).

(b) Includes power for traction, public lighting, etc. not specified in first three columns.

(c) Not recorded separately.

It will be observed that the Tasmanian average is the *lowest* and the householder pays less per unit on the average than his counterpart on the Australian mainland. The economy of hydro-electric generation can be best obtained by comparing the prices charged to industrial users. In 1971 Tasmanian power charges were increased by 17 per cent comprising a 12 per cent lift in retail tariffs plus a government tax of five per cent. The government tax was levied on H.E.C. revenue but was passed on by the Commission to consumers.

The following table shows the amount of power sold in the Commonwealth:

Sales of Electric Power: Tasmania and Other States, 1971-72 (a)
(Million Kilowatt Hours)

State or Territory	Residential Sales	Commercial Sales	Industrial Sales	Total Sales (b)
New South Wales	7,193	(c) 10,802		18,561
Victoria	4,581	2,004	4,584	11,511
Queensland	2,215	965	2,113	5,333
South Australia	1,611	614	1,466	3,718
Western Australia	992	(c) 1,349		2,373
Tasmania	952	116	4,062	5,144
Commonwealth Territories	407	(c) 536		968
Commonwealth Total	17,951	(c) 28,611		47,608

(a) Source: 'Statistics of the Electricity Supply Industry in Australia' (published by the Electricity Supply Association of Australia).

(b) Includes power for traction, public lighting, etc. not specified in first three columns.

(c) Not recorded separately.

Finances of Hydro-Electric Commission

The table that follows shows the Commission's income and expenditure:

Hydro-Electric Commission: Income and Expenditure
(**\$'000**)

Particulars	1968-69	1969-70	1970-71	1971-72
INCOME				
Sales—Bulk Power	12,986	15,233	17,168	18,549
Retail Current	20,221	21,472	22,540	26,376
Other Income	431	591	443	1,361
Total	33,638	37,296	40,151	46,286
EXPENDITURE				
Operation, Distribution, Administration	11,302	12,736	15,236	16,700
Interest on Loans and Reserves	17,679	19,736	22,350	25,213
Less Interest Capitalised	-2,983	-3,617	-4,044	-4,106
Depreciation Provision	4,025	4,285	4,544	5,255
Superannuation Contribution and Retirement Benefits	999	1,091	1,398	1,644
Contribution to Consolidated Revenue .. .. .	..	..	..	804
Other Expenditure	803	864	586	768
Net Profit	1,814	2,201	81	8
Total	33,638	37,296	40,151	46,286

All annual charges (interest, depreciation, operation, etc.) are borne by the Commission out of its revenues from the sale of electricity. There are no subsidies or other contributions from general State revenues.

Chapter 10

TRADE AND DISTRIBUTION

OVERSEAS AND INTERSTATE TRADE

Historical

The *Statistical Returns of Van Diemen's Land* and the *Statistics of Tasmania* provide a continuous series of total trade statistics dating from 1824 to 1909. Until the foundation of the Commonwealth in 1901, trade with other parts of Australia was recorded as originating from or being destined for 'British Colonies'; in other words, all Tasmanian sea trade was regarded as overseas. From Federation to 1909, statistics were collected and compiled by the newly formed Commonwealth Customs Department for *all* sea trade, but since 1910 only direct *over-seas* trade has been recorded by the Customs Department. In an island State, it became apparent that statistics of overseas trade alone were inadequate to record economic activity and, from 1922-23, the Government Statistician collected and published details of interstate trade; the collection of these data, now undertaken by the State Office of the Bureau of Census and Statistics, is carried out independently of the Customs Department and depends primarily on documents made available by Tasmanian port authorities. In brief, there is a *total* trade series (1824-1909), an *overseas* trade series (1910 to 1921-22) and a *total* trade series (1922-23 to today).

In the immediate post-war period, there was a marked expansion of commercial aviation; the freight being carried was a component of interstate trade and steps were taken to record it, the first published figures appearing for 1949-50. Thus, the total trade of Tasmania is now recorded in three categories: by sea, overseas; by sea, interstate; by air, interstate.

Value of Trade from 1824

Note on Currency

The pre-Federation details were recorded in sterling; subsequent details were recorded in £A which had parity with sterling until 1930 when devaluation made £A1.25 equal to the £ sterling. In 1949 the £ sterling was devalued by 30.5 per cent and the £A was correspondingly devalued to preserve the 1930-1949 relativity. In 1966 Australia changed to decimal currency, with \$A equal to £A0.5. In late 1967, the £ sterling was devalued from an equivalency of \$A2.51 to \$A2.151. The \$A was devalued by approximately 2.25 per cent against the £ sterling in 1971. The exchange rate between the \$A and the £ sterling is no longer fixed and from December 1971 the \$A has been quoted in terms of \$U.S. In December 1972 the \$A was valued upwards against the \$U.S. to give an effective change of + 7.05 per cent. This was followed in February 1973 by a 10 per cent devaluation of the \$U.S. which had the effect of adding further to the upward valuation of the \$A. In the tables in this section, pre-1966 recorded figures have been converted to \$A by simply doubling the originals, *irrespective of their year of occurrence* and no account has been taken of changes in exchange rates.

Due to considerable and persistent changes in the purchasing power of money, it is extremely difficult to satisfactorily interpret any long-term statistical series expressed in money terms. The following table is therefore of interest historically but subject to all the disabilities (including devaluations of Australian currency) associated with long-term money series:

Total Value of Trade by Sea and Air: Historical Summary
('\$000)

Year	Value of Imports				Value of Exports			
	By Sea		By Air	Total	By Sea		By Air	Total
	Overseas	Interstate	Interstate		Overseas	Interstate	Interstate	
1824	<i>n.a.</i>	<i>n.a.</i>	..	124	<i>n.a.</i>	<i>n.a.</i>	..	30
1860	1,686	450	..	2,136	1,544	380	..	1,924
1880	738	2,000	..	2,738	1,568	1,456	..	3,024
1900	1,402	2,746	..	4,148	3,078	2,144	..	5,222
1910	1,662	(a)	..	<i>n.a.</i>	1,040	(a)	..	<i>n.a.</i>
1919-20 ..	1,626	(a)	..	<i>n.a.</i>	4,022	(a)	..	<i>n.a.</i>
1929-30 ..	3,668	16,028	..	19,696	4,978	13,198	..	18,176
1939-40 ..	3,188	21,780	..	24,968	4,852	20,954	..	25,806
1949-50 ..	18,704	51,218	(b) 10,670	80,592	29,936	42,672	(b) 3,996	76,604
1959-60 ..	27,606	130,014	19,210	176,830	47,730	137,530	20,818	206,078
1969-70 ..	(c) 46,998	257,441	20,551	(c) 324,989	143,470	286,083	26,287	455,840
1971-72 ..	39,749	281,576	20,622	341,947	178,950	302,608	29,374	510,932

(a) Collection discontinued for period 1910 to 1921-22.

(b) First collected in 1949-50.

(c) From 1965-66 the value of outside packages (approximately \$500,000 annually) is included in the value of overseas imports.

Definition of 'Overseas' and 'Interstate'

Statistics of overseas trade of Tasmania include details of goods landed directly from overseas or shipped directly to overseas ports; and, in addition, details of goods transhipped through other Australian States, *provided that the overseas import or export document has been lodged with Customs in Tasmania*. Statistics of interstate trade include details of goods landed in or shipped from other Australian States; and, in addition, details of goods transhipped through other Australian States, *provided that the overseas import or export document has been lodged with Customs in another Australian State*.

By way of example, a new Japanese car transhipped in Melbourne and discharged in Tasmania is classified as an item of interstate trade. Victoria, not Japan, is classified as the place of origin, provided that the overseas import document has been lodged with Customs in Victoria.

Effect of Motor Vehicles on Total Value of Imports and Exports

Import and export details of motor cars and commercial vehicles include tourist vehicles entering and leaving the State. The inauguration of a vehicular ferry service in October 1959 resulted in a sharp increase in the transport of vehicles as suggested in the following table:

Motor Cars and Commercial Vehicles (a): Value of Imports and Exports
('\$000)

Particulars	1958-59	1959-60	1968-69	1969-70	1970-71	1971-72
Imports	19,258	29,148	46,982	54,191	59,062	63,016
Exports	3,654	13,100	21,084	25,998	27,087	28,229

(a) As well as new and used vehicles, includes business and tourist vehicles moving to and from the State.

Since Tasmanians do not carry out motor vehicle assembly on any extensive scale (and certainly not for export), it follows that total import and export values for 1971-72 are both inflated by approximately \$28m worth of vehicles, principally tourist, which entered and left the State. If vehicle exports are offset against imports, the net import figure will still include some used as well as new vehicles.

Source of Trade Statistics

Overseas trade statistics are compiled from documents obtained under the *Federal Customs Act 1901* and supplied to the Commonwealth Bureau of Census and Statistics by the Department of Customs and Excise. *Interstate sea* trade statistics are compiled from documents required under the authority of the *Marine Act 1921* and made available to the Tasmanian Office of the Bureau by the various port authorities. Statistics of *interstate air* trade are compiled from returns furnished direct to the Tasmanian Office of the Bureau by all those who use this medium for the transportation of goods in commercial or industrial operations.

Values

The cost of importing goods into any country will theoretically contain four elements: (i) the 'original' price at door of factory, warehouse, etc.; (ii) the cost of delivering goods to the ship 'free on board'; (iii) sea freight and associated charges between ports; and (iv) cost of delivery from port to buyer.

Trade statistics base values on the first two elements but exclude the third and fourth, as set out in the following definitions:

The basis of value for overseas imports is 'transaction value, actual (*f.o.b.*)' or 'domestic value (*f.o.b.*)' if higher. Overseas exports are valued *f.o.b.* at the Australian port of shipment as follows: (i) for goods sold before export—the price at which the goods were sold; or (ii) for goods shipped on consignment—the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were despatched. Interstate imports and exports are valued *f.o.b.* at the port of shipment.

Tasmanian Ports

Although there are seven port authorities (usually called marine boards) in Tasmania, overseas trade is restricted to the ports of Hobart, Launceston, Burnie, Devonport and Stanley. (Exports of iron ore from Port Latta are credited to Stanley and exports of woodchips from Spring Bay are credited to Hobart.) The names of ports in subsequent tables refer to the towns in which the controlling port authorities are located. Thus 'Hobart' includes Port Huon, Spring Bay and, from 1 October 1970, Strahan; 'Launceston' includes Bell Bay, Beauty Point, Inspection Head and Long Reach; 'Stanley' includes Port Latta; 'Currie' includes Naracoopa and Grassy; and 'Lady Barron' includes Whitemark.

This Chapter deals only with the imports and exports passing through these ports. For a description of the major ports and for the financial operations of the port authorities, see Chapter 11.

Total Trade of Tasmania

The following table shows Tasmanian total trade and its components in recent years:

Total Trade
(\$'000)

Year	Imports				Exports			
	By Sea		By Air	Total Imports	By Sea		By Air	Total Exports
	Overseas	Interstate	Interstate		Overseas	Interstate	Interstate	
1966-67 ..	51,376	209,456	20,311	281,143	88,834	224,975	25,680	339,490
1967-68 ..	45,024	220,065	20,590	285,679	76,888	233,694	26,941	337,524
1968-69 ..	37,509	241,398	21,051	299,958	102,061	265,476	25,825	393,362
1969-70 ..	46,998	257,441	20,551	324,989	143,470	286,083	26,287	455,840
1970-71 ..	45,719	269,022	19,777	334,519	143,198	277,669	27,103	447,970
1971-72 ..	39,749	281,576	20,622	341,947	178,950	302,608	29,374	510,932

It will be observed that interstate trade is the major element both in imports and exports. The next table shows the balance of trade (excess of exports over imports):

Balance of Trade (Sea and Air)

Year	Balance of Trade (Excess of Exports)		Year	Balance of Trade (Excess of Exports)	
	Total (\$'000)	Per Head of Mean Population (\$)		Total (\$'000)	Per Head of Mean Population (\$)
1960-61	9,918	28.33	1966-67	58,347	156.31
1961-62	34,724	98.32	1967-68	51,845	137.37
1962-63	30,324	84.66	1968-69	93,404	244.23
1963-64	52,496	144.71	1969-70	130,851	338.74
1964-65	78,957	215.51	1970-71	113,451	291.46
1965-66	72,926	197.31	1971-72	168,985	430.64

Overseas Trade by Sea

From the earliest days, the United Kingdom was Tasmania's main source of overseas imports. Up to 1967-68 it was also Tasmania's major overseas market. However, in recent years, trade with other countries has begun to assume greater importance and in 1968-69, the value of exports to Japan exceeded the value of exports to the United Kingdom for the first time. Details of Tasmania's trade with overseas countries for the past six years follow:

Total Value of Trade by Sea With Overseas Countries (\$'000)

Year	Value of Imports From—				Value of Exports To—			
	United Kingdom	United States of America	Japan	Other Overseas Countries	United Kingdom	United States of America	Japan	Other Overseas Countries
1966-67 ..	8,886	10,735	7,385	24,370	20,913	15,737	10,291	41,893
1967-68 ..	13,357	6,835	5,374	19,458	20,219	9,566	9,005	38,098
1968-69 ..	8,705	5,629	5,708	17,467	17,267	16,216	24,362	44,216
1969-70 ..	10,563	6,636	5,309	24,490	24,363	19,945	43,465	55,697
1970-71 ..	6,098	7,269	5,419	26,933	20,574	18,427	54,999	49,198
1971-72 ..	6,878	4,655	5,049	23,167	29,580	27,062	55,997	66,312

Trade with Selected Countries

The principal countries of origin together with values (in \$m) for overseas imports shipped direct to Tasmania in 1971-72 were: U.K., 6.9; New Zealand, 5.8; Japan, 5.0; U.S.A., 4.7; Canada, 3.8; Sweden, 1.5; Federal Republic of Germany, 1.2. The principal countries of destination for overseas exports shipped direct from Tasmania (value in \$m) were: Japan, 56.0; U.K., 29.6; U.S.A., 27.1; Thailand, 6.8; People's Republic of China, 6.1; India, 5.7; Hong Kong, 5.4; Malaysia, 4.3; Federal Republic of Germany, 3.3; France, 3.3.

The next table shows the trade of Tasmania with selected overseas countries; countries selected are those for which imports or exports approached or exceeded \$1m in any one of the three years under review, with the exception of countries for which figures are confidential. It should be noted that some goods are received from, or sent to, overseas countries by transshipment through other Australian States; no data are available on such transactions.

Trade With Overseas Countries
('\$000)

Country of Origin or Destination	Imports (a)			Exports		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
Belgium-Luxembourg ..	352	124	227	2,099	941	1,952
Canada	4,234	4,801	3,778	1,066	145	497
China, People's Republic of	232	27	65	3,873	517	6,099
France	219	504	606	2,356	2,626	3,251
Germany, East	24	16	20	64	2,109	28
Germany, Federal Republic	2,381	1,523	1,174	4,801	2,815	3,280
Hong Kong	703	480	400	2,848	3,888	5,356
India	129	81	88	2,727	5,681	5,744
Indonesia .. .. .	..	..	1	618	1,873	2,945
Italy	751	665	972	3,242	1,631	2,375
Japan	5,309	5,419	5,049	43,465	54,999	55,997
Malaysia	3	324	18	1,534	1,609	4,278
Netherlands	532	603	328	5,866	2,721	2,167
New Zealand	3,501	5,108	5,801	1,625	1,941	2,033
Philippines	1	..	1	2,597	1,487	1,662
Poland	4	4	10	616	710	745
Singapore	5	291	961	2,367	2,660	2,660
South Africa	261	635	567	708	750	370
Sweden	2,909	2,184	1,538	1,308	1,112	1,133
Taiwan	6	30	229	830	1,421	2,745
Tanzania .. .. .	..	..	..	538	1,480	1,999
Thailand	48	78	3	5,252	4,142	6,833
Turkey	143	177	234	2,299	..	..
United Kingdom	10,563	6,098	6,878	24,363	20,574	29,580
U.S.A.	6,636	7,269	4,655	19,945	18,427	27,062
Yugoslavia	1	1	9	1,549	1,567	1,724
Other Countries	7,986	7,618	6,022	4,914	5,372	6,419
'For Orders' (b) .. ..	..	..	..	..	..	16
Origin Unknown	46	46	56	..	..	..
Australia (Re-imported)	19	1,613	59	..	..	..
Total	46,998	45,719	39,749	143,470	143,198	178,950

(a) Value of outside packages included: 1969-70, \$566,000; 1970-71, \$423,000; 1971-72, \$460,000.

(b) Country of consignment not determined at the time of export.

Tasmanian and Australian Overseas Trade

The following table compares Australia's total overseas imports and exports with the corresponding values for Tasmania; by using a per capita comparison, certain conclusions can be drawn about the relative importance of Tasmania's overseas exports bearing in mind that Tasmania's figures are understated and Australia's correspondingly inflated in respect of transshipments not recorded as *overseas* trade for Tasmania.

Value of Overseas Trade: Tasmania and Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
IMPORTS					
Australia—Total \$'000	3,264,473	3,468,505	3,881,227	4,150,073	4,007,263
Per Head \$	274.3	285.9	313.4	r327.9	310.7
Tasmania—Total \$'000	45,024	37,509	46,998	45,719	39,749
Per Head \$	119.3	98.1	121.7	r117.3	101.3

Value of Overseas Trade: Tasmania and Australia—continued

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
EXPORTS					
Australia—Total \$'000	3,044,675	3,374,263	4,135,300	4,374,681	4,902,153
Per Head \$	255.8	278.2	333.9	r345.6	380.1
Tasmania—Total \$'000	76,888	102,061	143,470	143,198	178,950
Per Head \$	203.7	266.9	371.4	r367.4	456.0

The relatively low value of overseas imports per head of Tasmanian population is due largely to the transshipment of goods in other Australian ports. Since some goods go overseas from Tasmania by transshipment and are therefore *not* recorded as Tasmanian overseas exports, the export comparisons *per head* of Australian and Tasmanian populations suggest that the State plays an important role as an earner of export income.

Interstate Trade by Air

No data are compiled to show State of origin or State of destination for trade by air; most planes carrying commercial freight, to and from Tasmania, take off from or land in Victoria. The following is a summary of Tasmania's air trade for recent years:

Value of Interstate Air Trade
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Imports	20,590	21,051	20,551	19,777	20,622
Exports	26,941	25,825	26,287	27,103	29,374
Total	47,531	46,876	46,838	46,880	49,996

Interstate Trade by Sea

As might be expected with Melbourne being the closest major port to Tasmania, the bulk of the island's interstate trade is transacted with Victoria. The next table shows the value of interstate sea trade with other Australian States. Imports include the value of some goods imported into other States from overseas and transhipped to Tasmania; exports include the value of some goods exported to other States for transshipment overseas.

Value of Interstate Sea Trade
(\$'000)

Australian State or Territory of Origin or Destination	Imports			Exports		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
New South Wales ..	47,156	46,586	39,873	111,692	102,829	111,925
Victoria	177,509	r189,033	206,844	148,352	r152,534	166,729
Queensland	(a) 9,650	(a) 10,332	(a) 14,433	9,080	9,240	9,822
South Australia ..	19,392	19,087	16,860	12,885	9,215	10,818
Western Australia ..	3,735	3,985	3,567	4,074	3,850	3,297
Northern Territory ..	n.p.	n.p.	n.p.	..	2	18
Total	257,441	r269,022	281,576	286,083	r277,669	302,608

(a) Includes the value of manganese ore imported from the Northern Territory. Details are not available for separate publication.

Sea Trade of Tasmanian Ports

In the following table, the value of total imports and exports by sea is shown for each port:

Total Value of Sea Trade Classified According to Port
(\$'000)

Port	Imports		Exports		Total Sea Trade	
	1970-71	1971-72	1970-71	1971-72	1970-71	1971-72
Burnie	54,635	50,941	106,518	123,198	161,153	174,139
Devonport	64,601	66,913	54,712	65,300	119,313	132,213
Hobart (a)	100,929	105,185	134,221	164,878	235,150	270,063
Currie	4,261	4,024	7,913	6,726	12,174	10,750
Launceston	88,669	92,862	90,869	94,720	179,538	187,582
Stanley	1,629	1,379	25,962	25,863	27,591	27,242
Lady Barron	17	21	672	874	689	895
Total	314,741	321,325	420,867	481,558	735,608	802,883

(a) Includes Strahan from 1 October 1970; no trade through Strahan was recorded for the period July to September, 1970.

The next table compares the proportion of total sea trade values attributed to each port (using 1958-59 for comparison):

Total Value of Sea Trade: Port Proportions
(Per Cent)

Port	1958-59	1967-68	1968-69	1969-70	1970-71	1971-72
Burnie	15.3	20.1	19.7	20.2	21.9	21.7
Devonport	6.8	20.2	18.9	17.5	16.2	16.5
Hobart	50.8	33.6	33.5	32.9	32.0	33.6
Currie	0.5	1.4	1.7	1.3	1.7	1.3
Launceston	23.5	21.2	21.4	22.6	24.4	23.4
Stanley	0.6	0.5	3.1	3.9	3.8	3.4
Strahan	2.4	3.0	1.5	1.5	..	..
Lady Barron .. ..	..	..	0.2	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

The decline in the proportion of sea trade attributed to Hobart since 1958-59 is related to the increasing use of 'sea-road' facilities available through the ports of Devonport, Launceston and Burnie. The vessels involved in the 'sea-road' service to northern and north-western ports are the *Bass Trader* and *Empress of Australia*. The *Princess of Tasmania*, which inaugurated this type of service between Melbourne and Devonport in October 1959, was replaced by the *Empress of Australia* in June 1972. In June 1964 similar facilities became available at Hobart when the *Seaway Queen* began a sea-road service to Melbourne, followed in September 1964 by the *Seaway King* operating a direct service to Sydney. These two vessels now alternate in providing regular Melbourne-Hobart and Sydney-Melbourne-Hobart services. The *Empress of Australia* which had provided a regular service since January 1965 with Sydney-Hobart-Sydney as one route and Sydney-Bell Bay-Burnie-Sydney as the other, was withdrawn in April 1972 for re-fitting prior to replacing the *Princess of Tasmania* on the Bass Strait run. The *Empress of Australia* was replaced immediately by the *Australian Trader* which had served northern ports regularly since mid-1969. Both these vessels also provide overnight accommodation for passengers. In October 1971 another roll-on roll-off type vessel, the *Mary Holyman*, commenced a regular service between South Australia and Tasmania with Port Adelaide-Hobart as one route and Port Adelaide-Burnie as the other. In January 1973 the *Darwin Trader*, a bulk carrier-container vessel, inaugurated a regular service with Darwin-Launceston as one route,

carrying bulk manganese ore, and Hobart-Darwin, via Melbourne, Sydney and Brisbane, with containers and general cargo, as the other. Several other vessels (e.g. *Sydney Trader*, *Brisbane Trader*) provide, as required, irregular sea-road services between the four main Tasmanian ports and other Australian States.

Air Trade of Tasmanian Airports

Although Tasmania has a number of airports, only six are used on a regular basis for inter-state trade; four are located near Hobart, Launceston, Burnie and Devonport respectively and the remaining two on King and Flinders Islands.

The following table shows the value of interstate air trade passing through Tasmanian airports:

Total Value of Interstate Air Trade Classified According to Airport
(\$'000)

Airport	Imports		Exports		Total Air Trade	
	1970-71	1971-72	1970-71	1971-72	1970-71	1971-72
Hobart	9,764	9,757	4,097	4,399	13,861	14,156
Launceston	6,182	7,664	22,005	23,943	28,187	31,607
Devonport	1,400	1,029	230	198	1,630	1,227
Wynyard (a)	1,626	1,481	181	210	1,807	1,691
King Island	530	401	459	478	989	879
Flinders Island	275	290	132	146	406	436
Total	19,777	20,622	27,103	29,374	46,880	49,996

(a) Includes Smithton.

The percentage of the total value of air trade passing through each Tasmanian airport in 1971-72 was: Hobart, 28.3; Launceston, 63.2; Wynyard, 3.4; Devonport, 2.5; King Island, 1.8; Flinders Island, 0.9.

Commodities Carried by Air

It will be observed that the value of trade by air is about six per cent of the value of total trade by sea and air combined. With regard to exports by air (valued at \$29,374,000 in 1971-72), the major group was 'Textile and Yarns' valued at \$27,368,000; exports of all foodstuffs (meat, rock lobster, fruit, etc.) accounted for a further \$922,000. For imports there is a much greater range of commodities involved, the chief group being 'Clothing and Footwear' valued at \$11,286,000.

The annual values of both imports and exports by air have not increased greatly over the past 10 years, which means that the quantities of goods involved have almost certainly declined because of the general increase in prices over the period. A possible explanation is the improvement in sea carriage techniques (roll-on roll-off vessels, container vessels, etc.) and improved shipping schedules.

The following table shows the value of imports to and exports from Tasmania by air for the past 10 years:

Air Trade: Value of Interstate Imports and Exports
(\$'000)

Year	Imports	Exports	Year	Imports	Exports
1962-63	18,158	21,602	1967-68	20,590	26,941
1963-64	19,840	23,424	1968-69	21,051	25,825
1964-65	20,819	25,770	1969-70	20,551	26,287
1965-66	21,123	25,575	1970-71	19,777	27,103
1966-67	20,311	25,680	1971-72	20,622	29,374

Imports of Principal Commodities

The next table shows the value of the principal commodities imported into Tasmania by sea and air for a four-year period:

Imports of Principal Commodities by Sea and Air: Values
(\$'000)

Commodity	1968-69	1969-70	1970-71	1971-72
Beer, Wine and Spirits	3,972	4,085	4,313	3,908
Aluminium Oxide	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
Clothing and Accessories	13,453	13,855	13,478	15,119
Cocoa Beans and Cocoa Butter	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
Footwear	3,431	3,627	3,767	3,779
Machinery—Electrical	13,887	15,439	14,663	12,668
Other	20,735	24,589	19,580	21,807
Metal Manufactures	8,465	8,770	8,355	7,920
Metals	13,760	14,767	14,864	15,683
Motor Vehicles—New	25,863	28,513	32,567	35,078
Other (a)	21,119	25,678	26,495	27,938
Ores and Concentrates—Zinc	6,160	6,995	7,594	9,341
Other	3,316	5,047	3,686	5,995
Paper and Paper Manufactures	8,819	8,314	8,000	7,300
Petroleum Products—Motor Spirit	8,502	8,314	8,335	8,495
Fuel Oils	11,354	11,267	12,059	11,605
Other	5,599	5,543	7,221	7,106
Pulp for Paper-making	6,346	8,332	10,619	9,190
Rubber Manufactures	4,960	4,959	5,114	5,273
Sugar, Refined	4,104	4,376	4,344	4,368
Textile Yarn and Fabrics	12,294	12,823	12,391	14,198
Tobacco and Cigarettes	13,670	13,428	13,392	13,246
Wheat	3,200	2,852	2,907	2,780
Wool, Greasy	2,313	2,862	2,113	2,353
Other (b)	84,636	90,555	98,662	96,796
Total Imports	299,958	324,989	334,519	341,947

(a) Mainly tourist and other motor vehicles imported as personal effects.

(b) Includes value details marked 'n. p.'.

The table that follows shows the quantities of the principal commodities imported and has been compiled, as far as this is practicable, to match the preceding table of values.

Imports of Principal Commodities by Sea and Air: Quantities

Commodity	Unit of Quantity	1968-69	1969-70	1970-71	1971-72
Alcoholic Beverages—					
Ale, Beer, Stout and Cider	gal	550,302	620,352	691,781	468,439
Wine	gal	543,335	548,893	519,612	532,704
Spirits and Liqueurs—Overseas	pr gal	26,302	15,446	18,792	13,280
Interstate	gal	171,620	177,783	181,089	180,088
Aluminium Oxide	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
Cocoa Beans and Cocoa Butter	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
Iron and Steel	ton	92,509	99,911	99,488	105,201
Motor Vehicles—New	no.	13,550	13,692	14,111	15,070
Other (a)	no.	13,548	16,473	16,956	17,886
Ores and Concentrates—Zinc	ton	228,712	261,326	273,176	325,209
Other	ton	218,803	321,493	292,039	465,383
Petroleum Products—					
Motor Spirit	'000 gal	70,303	70,518	69,996	70,773
Fuel Oils	'000 gal	114,908	118,442	133,282	130,901
Pulp for Paper-making	ton	63,026	72,150	82,845	70,748
Sugar, Refined	ton	23,065	24,446	24,001	24,131
Tobacco and Cigarettes	'000 lb	2,393	2,254	2,262	2,244
Wheat	ton	51,234	48,819	52,479	49,189
Wool, Greasy	'000 kg	1,751	2,156	1,852	2,086

(a) Mainly tourist and other motor vehicles imported as personal effects.

Imports from Principal Overseas Countries

The next table shows the value of imports, by commodities, from principal overseas countries:

Value of Imports from Principal Overseas Countries
(\$'000)

Commodity	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
UNITED KINGDOM						
Chemicals	575	662	455	307	456	633
Electrical Machinery ..	742	1,557	2,294	694	651	2,061
Food, Beverages and Tobacco	360	278	254	288	207	178
Iron and Steel	150	190	250	145	135	108
Machinery, Other than Electric	2,263	6,408	1,881	5,404	1,400	339
Metal Manufactures ..	362	209	241	283	285	451
Printed Matter	480	419	462	287	251	278
Textile Fibres	596	353	283	339	320	195
Textiles	1,016	1,290	1,128	1,041	828	729
Tyres and Tubes	124	168	178	151	247	212
Scientific Equipment ..	78	88	105	162	141	219
White Clays	178	122	226	271	321	316
Other	1,962	1,613	948	1,191	856	1,159
Total	8,886	13,357	8,705	10,563	6,098	6,878
UNITED STATES OF AMERICA						
Bentonite .. ..	..	107	146	341	210	395
Chemicals	1,232	860	548	685	167	199
Electrical Machinery ..	1,384	114	184	115	397	69
Machinery, Other than Electric	4,438	2,736	1,658	2,677	1,673	826
Paper and Paperboard ..	1	70	36	7	132	99
Petroleum Coke	937	628	850	748	1,680	1,666
Textiles	234	255	257	266	227	..
Transport Equipment ..	157	107	394	202	213	23
Woodpulp for Paper-making	854	1,134	895	971	1,839	957
Other	1,498	824	661	624	731	421
Total	10,735	6,835	5,629	6,636	7,269	4,655
JAPAN						
Chemicals	37	523	284	403	1,420	722
Cocoa Butter .. ..	..	..	n.p.	n.p.	n.p.	n.p.
Commercial Road Transport Vehicles	223	230	450	263	204	352
Electrical Machinery ..	641	242	203	711	782	586
Machinery, Other than Electric	888	1,022	1,376	667	226	322
Motor Cycles	42	97	68	91	166	160
Passenger Motor Cars ..	540	999	770	483	653	719
Textiles	1,128	1,376	1,965	1,746	1,091	1,566
Tyres and Tubes	174	169	141	..	177	44
Other (a)	3,712	716	451	945	700	578
Total	7,385	5,374	5,708	5,309	5,419	5,049

Value of Imports from Principal Overseas Countries—continued
(\$'000)

Commodity	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
NEW ZEALAND						
Chemicals	18	31	35	38	155	144
Grass and Field Seeds ..	194	200	381	117	98	74
Machinery and Transport Equipment	29	56	62	96	142	195
Paper and Paperboard ..	629	690	683	330	403	395
Textiles	41	83	88	189	691	980
Wood Pulp for Paper-making	2,358	1,615	2,275	2,306	3,260	3,324
Other	444	579	475	425	359	689
Total	3,713	3,254	3,999	3,501	5,108	5,801

(a) Includes value details for items not available for separate publication.

Exports of Principal Commodities

The following table shows the value of principal commodities exported from Tasmania by sea and air:

Exports of Principal Commodities by Sea and Air: Values
(\$'000)

Commodity	1969-70	1970-71	1971-72
Butter (including Butter Oil)	6,950	5,954	8,067
Cheese	2,957	2,589	3,875
Fish, Crustaceans and Molluscs	3,562	3,892	4,780
Fruit—Apples (Fresh)	13,976	12,687	10,420
Pears (Fresh)	929	787	672
Processed	2,019	1,795	1,665
Hops	2,380	2,218	2,114
Live Animals (Cattle, Sheep and Pigs)	3,212	2,146	2,731
Meat—Beef and Veal	7,729	6,583	9,158
Lamb and Mutton	2,560	2,212	2,752
Other	1,485	1,912	2,252
Vegetables, Fresh and Preserved	15,555	13,241	16,782
Other Food, Live Animals and Beverages (a)	30,346	30,625	30,985
Fertilisers, Manufactured	1,565	2,232	2,605
Hides and Skins (Cattle, Calf and Sheep)	2,801	2,546	2,867
Metal Manufactures (including Machinery)	7,116	8,632	9,777
Metals, Refined—Cadmium	1,900	1,871	1,866
Copper	9,783	37	65
Zinc	42,625	38,163	55,149
Motor Cars and Commercial Vehicles (b)	25,998	27,087	28,229
Ores and Concentrates—Copper	8,369	24,253	27,137
Iron	25,286	24,935	25,503
Tungsten	5,886	7,888	7,320
Lead	7,358	5,823	7,538
Tin	16,207	18,088	20,364
Pigments, Paints and Varnishes	14,663	11,328	12,435
Textile Yarn, Fabrics and Made-up Articles	27,784	28,425	29,938
Timber, Dressed and Undressed	16,238	17,201	17,385
Wool, Greasy	17,821	14,350	17,180
Commodities Not Available for Publication (c)	122,105	115,029	133,097
All Other Exports	8,675	13,441	16,224
Total Exports	455,840	447,970	510,932

(a) Includes confectionery, cocoa and chocolate, details of which are not available for separate publication.

(b) Mainly tourist and other motor vehicles exported as personal effects.

(c) Commodities comprising this item are: aluminium, alumina, ferro-manganese, silicon-manganese, calcium carbide, cement, asbestos-cement articles, paper, paper pulp, hardboard, plywood and woodchips.

The next table shows the quantities of the principal commodities exported and has been compiled, as far as this is practicable, to match the preceding table of values:

Exports of Principal Commodities by Sea and Air: Quantities

Commodity (a)	Unit of Quantity	1969-70	1970-71	1971-72
Butter (including Butter Oil)	cwt	248,238	209,904	193,475
Cheese	cwt	143,048	123,203	134,158
Fish—Rock Lobster	cwt	13,952	11,269	13,570
Other (including Molluscs)	cwt	37,511	34,772	36,311
Fruit—Apples (Fresh)	'000 lb	225,963	201,683	155,437
Pears (Fresh)	'000 lb	15,188	11,438	9,084
Preserved	'000 lb	12,488	12,226	11,215
Pulped	'000 lb	2,377	1,970	2,058
Dried	'000 lb	728	517	441
Hops	'000 lb	3,017	3,029	2,663
Live Animals—Cattle	no.	17,272	15,736	23,707
Sheep	no.	136,784	80,172	81,681
Pigs	no.	669	490	394
Meat—Beef and Veal	cwt	178,092	146,143	199,108
Lamb and Mutton	cwt	113,119	107,986	153,139
Pork	cwt	25,082	37,668	42,423
Vegetables, Fresh and Preserved	tons	56,212	54,077	56,572
Fertilisers, Manufactured	tons	27,613	31,360	34,788
Hides and Skins—Cattle and Calf	cwt	52,663	52,009	58,604
Sheep	'000 kg	3,236	3,710	3,765
Metals, Refined—Cadmium	tons	388	352	392
Copper	tons	7,210	26	46
Zinc	tons	161,259	140,500	191,190
Motor Cars and Commercial Vehicles (b)	no.	16,821	17,332	18,064
Ores and Concentrates—Copper	tons	32,310	92,365	111,776
Iron	tons	2,059,784	2,030,353	2,154,858
Lead	tons	29,889	23,032	44,533
Tin	tons	10,215	11,441	13,235
Tungsten	tons	2,065	2,126	2,591
Timber, Dressed and Undressed	'000 sup ft	87,824	85,002	85,744
Wool, Greasy	'000 kg	16,513	17,146	20,413

(a) Principal commodities not available for publication comprise: aluminium, alumina, ferro-manganese, silicon-manganese, calcium carbide, cement, asbestos-cement articles, paper, paper pulp, hardboard, plywood, woodchips and confectionery.

(b) Mainly tourist and other motor vehicles exported as personal effects.

Exports of Selected Commodities

The following table shows, in summary form, total exports of some important commodities for selected years since 1939-40:

Exports of Selected Commodities by Sea and Air

Commodity	Unit of Quantity	1939-40	1949-50	1959-60	1969-70	1971-72
QUANTITY						
Butter (including Butter Oil)	cwt	55,428	42,886	154,789	248,238	193,475
Apples and Pears, Fresh	'000 lb	163,964	125,468	177,876	241,151	164,521
Meat, Fresh, Chilled, or Frozen	cwt	48,885	18,750	181,261	336,280	422,569
Hides and Skins	cwt	62,195	57,296	101,304	116,369	132,713
Refined Copper	tons	11,738	4,253	7,624	7,210	46
Refined Zinc	tons	70,909	80,704	113,853	161,259	191,190
Ores and Concentrates	tons	135,052	89,148	84,635	2,140,237	2,339,440
Wool, Greasy	'000 kg	4,124	4,128	12,690	16,513	20,413
Timber (Dressed and Undressed)	'000 sup ft	50,858	62,136	75,403	87,824	85,744

Exports of Selected Commodities by Sea and Air—continued

Commodity	Unit of Quantity	1939-40	1949-50	1959-60	1969-70	1971-72
VALUE (\$'000)						
Butter (including Butter Oil)	742	1,278	5,390	6,950	8,067
Fish, Crustaceans and Molluscs	68	732	1,362	3,562	4,780
Apples and Pears, Fresh	2,270	4,348	9,490	14,905	11,092
Meat, Fresh, Chilled or Frozen	310	312	3,788	11,774	14,162
Hides and Skins	251	1,199	3,028	2,801	2,867
Refined Copper	1,416	1,478	5,022	9,783	65
Refined Zinc	2,856	9,964	22,922	42,625	55,149
Ores and Concentrates	2,144	4,076	5,952	63,478	88,777
Textile Yarn and Fabrics	2,674	5,540	17,524	27,784	29,938
Wool, Greasy	1,376	6,202	15,254	17,821	17,180
Timber, Dressed and Undressed	1,238	2,930	8,952	16,238	17,385

Exports to Principal Overseas Countries

Details for commodities exported to principal overseas countries are given in the next table:

Exports to Principal Overseas Countries

Commodity	Unit of Quantity	Quantity			Value (\$'000)		
		1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
JAPAN							
Abalone	'000 lb	836	752	979	443	569	1,012
Copper Ores and Concentrates	tons	20,005	74,907	73,246	5,590	19,195	15,669
Iron Ores and Concentrates	'000 tons	2,060	2,030	2,155	25,286	24,935	25,503
Lead Ores and Concentrates	tons	7,568	6,354	3,600	1,499	1,341	576
Meat, Fresh, Chilled or Frozen	cwt	34,031	45,909	99,298	658	849	1,982
Tallow	cwt	37,929	61,062	94,591	229	487	607
Wool, Greasy	'000 kg	4,002	3,963	3,335	4,206	3,479	2,771
Other (a) .. .. .	..	..	..	..	5,554	4,144	7,878
Total .. .. .	..	..	..	..	43,465	54,999	55,997

UNITED KINGDOM

Apples, Fresh	'000 lb	123,908	94,281	85,292	7,446	5,909	5,586
Butter	cwt	195,209	141,914	142,153	5,183	3,761	6,238
Cadmium, Refined	cwt	2,648	1,488	1,248	769	403	249
Cheese	cwt	97,915	85,638	44,002	1,841	1,610	1,208
Copper Ores and Concentrates	tons	1,914	5,409	3,489	355	1,055	474
Meat, Fresh, Chilled or Frozen	cwt	46,234	55,415	66,714	1,081	1,232	1,666
Pears, Fresh	'000 lb	11,135	7,139	7,000	659	447	486
Tin Ores and Concentrates	tons	960	1,928	2,855	509	1,096	2,176
Wool, Greasy	'000 kg	1,459	847	1,004	1,306	605	831
Zinc, Refined	tons	18,032	14,313	41,291	4,460	3,578	9,986
Other .. ..	..	..	..	..	754	878	678
Total .. ..	..	..	..	..	24,363	20,574	29,580

Exports to Principal Overseas Countries—*continued*

Commodity	Unit of Quantity	Quantity			Value (\$'000)		
		1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
UNITED STATES OF AMERICA							
Lead Ores and Concentrates	tons	22,074	16,647	40,689	5,821	4,475	6,903
Meat, Fresh, Chilled or Frozen	cwt	165,244	124,766	153,812	7,244	5,881	7,434
Rock Lobster	'000 lb	374	410	341	883	1,096	1,032
Zinc, Refined	tons	18,883	20,214	30,450	4,484	5,721	9,692
Other .. ..	..	..	..	..	1,513	1,254	2,001
Total .. ..	..	..	..	..	19,945	18,427	27,062

THAILAND

Butter	cwt	11,501	18,274	17,741	268	376	568
Zinc, Refined	tons	11,960	10,161	15,908	3,134	2,699	4,755
Other (a) .. ..	..	..	..	..	1,850	1,067	1,510
Total .. ..	..	..	..	..	5,252	4,142	6,833

(a) Includes item(s) for which details are not available for separate publication.

RETAIL TRADE IN TASMANIA

Censuses of Retail Establishments

Historical

Before the Integrated Economic Censuses of 1968-69, retail censuses were undertaken for the years ended 30 June 1948, 1949, 1953, 1957 and 1962. The information collected in each census was extensive and provided details of retail trading in local government areas, in statistical divisions, and in special 'statistical retail areas'. The census information was also used as a bench-mark for designing a sample representative of all retail establishments for the purpose of inter-censal quarterly surveys which are the basis for calculating estimates of the quarterly value of retail sales; estimates of the value of retail sales, based on these surveys, have been calculated for each quarter.

Details of the Census of Retail Establishments 1961-62 appeared in the 1969 and 1970 *Year Books*. The Census of Retail Establishments 1968-69 was conducted as part of a larger project, the Integrated Economic Censuses 1968-69, when five sectors of the economy were required to make simultaneous returns: manufacturing; mining; wholesaling; retailing; and electricity and gas. An explanation of the need to end the previous series of censuses and to start the new 1968-69 series based on new operating unit concepts and new data concepts is set out in Appendix A of the 1972 *Year Book*. The results of these censuses are shown in the special Appendix to this Chapter; from the comparative tables in this Appendix, it is possible to measure the economic significance of retailing against that of manufacturing, mining, wholesaling, and electricity and gas. Attention is also called to the special Appendix to Chapter 8 where the primary industries (excluding mining) are compared with each other using value definitions conceptually allied to those employed in the Chapter 10 Appendix.

Census of Retail Establishments, 1968-69*Full Title*

The full title of this census was Census of Retail Establishments and Selected Service Establishments. Previous censuses also included some service type activities.

Definition of a Retail Establishment

All Activities at One Location: In all the 1968-69 censuses, the basic unit, in general, covered all the operations carried on under the one ownership at a single physical location. The *retail establishment* is thus one predominantly engaged in retailing, but the data supplied for it now encompasses all activities at the location. It covers:

- (i) the retailing activity which is the predominant activity at the location;
- (ii) any wholesaling activity at the location; and
- (iii) any manufacturing or other activities at the location.

Exceptions to this total coverage rule are made where the secondary or subsidiary activity (in terms of gross value) exceeds \$1m. Such locations are treated, for statistical purposes, as two or more establishments corresponding to the various kinds of activity carried on.

Administrative Offices and Ancillary Units: The retail establishment statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the enterprise which owns and operates the establishment. Such units include head offices, storage premises, transport depots and motor vehicle repair and maintenance workshops. Their inclusion in the statistics does not inflate the number of establishments, e.g. a separate storehouse serving only a particular shop and the shop itself are counted as one establishment, classified according to the industry of the shop.

Effects of New Classification

The establishment's classification is based on the Australian Standard Industrial Classification (ASIC). ASIC defines the industries in the economy for statistical purposes and specifies the scope of the different economic censuses without gaps or overlaps. Adoption of ASIC has resulted in changes in scope between the 1968-69 retail census and the earlier retail censuses. The main changes are as follows:

(i) Motion picture theatres, licensed clubs and laundry and dry cleaning services were added to the 'selected services' group (details were obtained in supplementary collections for 1961-62 but not included in the main retail statistics).

(ii) Activities previously reported in both manufacturing and retail censuses are, by definition, allocated exclusively to the retail sector (i.e. if these defined activities were the establishment's major activity). Such activities include: (a) motor vehicle repairs; dry cleaning; shoe repairs; and tyre retreading; (b) custom dressmaking and custom tailoring; clothing repair and alterations; making up and repair of blinds, awnings and curtains; repair of domestic appliances; panel beating and smash repairs; watch and clock repairs; jewellery repairs; and baking of cakes in cake shops. (Group (b) was only included in the 1961-62 retail census if carried on at establishments also making retail sales.) With the adoption of the new criterion of major activity and the use of ASIC, no establishment is required to supply returns in more than one census and all establishments mainly engaged in the above activities are now included in the retail census only.

It will be seen that the service activities reported in the 1968-69 retail census are very much the same as in the past.

(iii) Some changes are due to the concept of major activity. Previous retail censuses covered the retailing activities of all establishments which normally sold goods by retail to the general public from rooms, kiosks and yards, irrespective of what their main activity may have been. The 1968-69 retail census excludes locations where the main activity is something other than retailing.

(iv) Some changes in scope are not related to the introduction of ASIC. For example, bread vending and milk vending by independent vendors mainly engaged in retailing bread or milk by home service delivery are included for the first time.

(v) The basic definition of 'retail trade' remains the same: the resale of new and used goods to final consumers for personal and household consumption.

Data Concepts

The introduction of standardised data items in all census sectors has involved changes in the content of retail statistics. The new items are defined as follows:

The Value of Turnover: *Equals* sales of goods owned by the enterprises; *plus* all other operating income; *plus* goods withdrawn from stock for own use as fixed tangible assets or for rental or lease.

In the above definition, all other operating income *includes* commission, repair, servicing revenue, takings from meals and accommodation, hairdressing, theatre admissions, etc. but *excludes* rents, leasing revenue, interest (other than from hire purchase), royalties and receipts from the sale of fixed tangible assets.

Purchases and Selected Expenses: *Equals* purchases of goods for resale and materials for manufacturing; *plus* transfers in from establishments of the enterprise other than retail establishments; *plus* charges for commission and sub-contract work; *plus* purchases of wrapping and packaging materials, electricity and fuel; *plus* repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses, and sales commission payments.

The Value Added: *Equals* turnover *plus* increase (or *less* decrease) in the value of stocks *less* purchases and selected expenses.

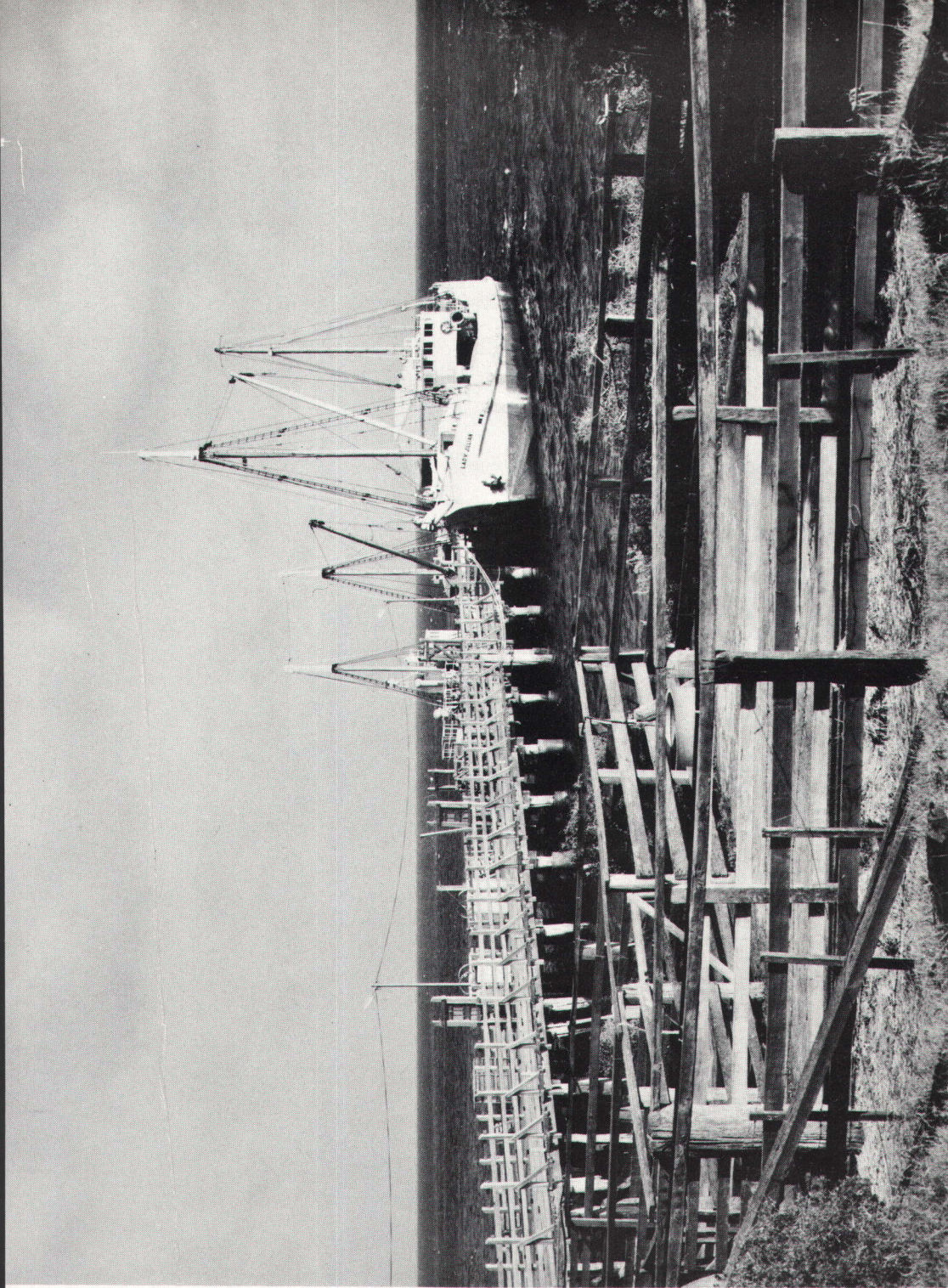
Value added is the appropriate measure for comparing various industries and can be added for groups of industries without there being any possibility of duplication. Such a comparison appears as an Appendix to this Chapter.

Transfers: It will be seen that 'transfers out' is not included in the definition of 'turnover'. Transfers of goods between retail establishments of the same enterprise are deducted from the purchases item in the return of the supplying establishment and added to purchases in the receiving establishment's return.

Results

The following tables give results for Tasmania of the 1968-69 retail census. Direct comparisons with the results of previous censuses cannot be made because of changes in the census units and the scope of the census.

The current monthly and quarterly survey estimates are now conceptually tied to the 1968-69 census results. This new series with commodity data comparable with that for the 1968-69 base year, commenced with the quarter ending 30 September 1971.



Lady Jillian at berth, Whitemark, Flinders Island

[Dept of Film Production]



Australian canoeing championships, Bradys Canal, Tungatinah-Lake Echo Scheme

Census of Retail and Selected Service Establishments, 1968-69 r
Summary of Operations by Industry Group

Industry Group	ASIC Code (a)	Establishments Operating at 30 June 1969	Persons Employed (b)			Wages and Salaries
			Males	Females	Persons	
		no.	no.	no.	no.	\$m
Department, Variety and General Stores	481	114	849	2,128	2,977	5.3
Food Stores	482	1,714	2,899	3,660	6,559	6.5
Bread and Milk Vendors	483	115	317	58	375	0.3
Clothing, Fabric and Furniture Stores..	484	519	909	1,572	2,481	4.2
Household Appliances and Hardware Stores	485	242	780	497	1,277	2.6
Motor Vehicles, Petrol and Tyre Retailers	486	851	4,206	865	5,071	9.7
Other Retailers	487	452	911	1,224	2,135	2.8
Total Retail Establishments ..	..	4,007	10,871	10,004	20,875	31.5
Motion Picture Theatres	911	40	142	105	247	0.4
Restaurants and Licensed Hotels ..	921	368	1,612	2,308	3,920	6.1
Licensed Clubs	922	143	418	97	515	1.0
Laundries and Dry Cleaners	931	47	191	365	556	1.0
Hairdressing and Beauty Salons ..	932	252	204	613	817	0.9
Total Selected Service Establishments .. .. .	..	850	2,567	3,488	6,055	9.2
Grand Total .. .. .	..	4,857	13,438	13,492	26,930	40.7

Census of Retail and Selected Service Establishments, 1968-69 r
Summary of Operations by Industry Group—continued

Industry Group	Retail Sales (c)	Turnover	Stocks at 30 June		Purchases, Transfers In and Selected Expenses	Value Added
			1968	1969		
	\$m	\$m	\$m	\$m	\$m	\$m
Department, Variety and General Stores	40.3	43.1	6.9	8.0	32.2	11.9
Food Stores	96.1	97.5	5.7	6.2	79.0	19.1
Bread and Milk Vendors	4.9	5.2	..	..	4.2	1.0
Clothing, Fabric and Furniture Stores..	37.5	38.6	8.7	9.2	28.1	11.0
Household Appliances and Hardware Stores	15.3	18.4	3.6	3.9	13.1	5.6
Motor Vehicles, Petrol and Tyre Retailers	90.3	113.5	10.2	11.0	91.1	23.2
Other Retailers	23.2	24.0	3.8	4.1	16.8	7.5
Total Retail Establishments ..	307.6	340.4	38.8	42.3	264.5	79.4
Motion Picture Theatres	0.2	1.3	..	..	0.5	0.8
Restaurants and Licensed Hotels ..	27.2	37.7	1.0	1.0	22.4	15.3
Licensed Clubs	4.2	5.0	0.2	0.2	3.1	1.9
Laundries and Dry Cleaners .. .. .	..	2.3	..	..	0.5	1.8
Hairdressing and Beauty Salons ..	0.3	2.4	0.1	0.1	0.5	1.9
Total Selected Service Establishments	31.9	48.8	1.3	1.4	27.1	21.7
Grand Total	339.5	389.1	40.1	43.7	291.6	101.1

(a) Australian Standard Industrial Classification.

(b) At last pay day in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(c) Retail Sales is a component of Turnover in next column.

The retail sales of four ASIC industry groups (food stores; motor vehicles, petrol and tyre retailers; department, variety and general stores; and clothing, fabric and furniture stores) accounted for almost 80 per cent of the total retail sales made by retail and selected service establishments during 1968-69. The next table gives a dissection of retail sales made by retail and selected service establishments according to ASIC industry class:

Census of Retail and Selected Service Establishments, 1968-69

Value of Retail Sales by Industry Class

(\$'000)

ASIC Code (a)	Industry Class	Retail Sales	ASIC Code (a)	Industry Class	Retail Sales
RETAIL ESTABLISHMENTS					
	Department, Variety and General Stores—			Household Appliance and Hardware Stores—	
4811	Department Stores ..	24,598	4851	Household Appliance Stores ..	9,729
4812,3	Variety and General Stores	15,709	4852	Household Electrical Appliance Repairers ..	293
481	Total	40,307	4853	China, Glassware and Domestic Hardware Stores	2,227
			4854	Watchmakers and Jewellers	2,409
			4855	Musical Instrument and Record Stores	642
			485	Total	15,300
	Food Stores—			Motor Vehicle Dealers, Petrol and Tyre Retailers—	
4821	Supermarkets	13,191	4861	New Motor Vehicle Dealers and Motor Vehicle Repairers n.e.c.	43,210
4822	Grocers and Tobacconists	51,807	4862	Used Motor Vehicle and Parts Dealers	18,849
4823	Butchers	19,774	4863	Tyre and Battery Retailers and Tyre Retreaders ..	5,624
4824	Fruit and Vegetable Stores	2,450	4864	Service Stations	20,487
4825	Liquor Stores	903	4865	Smash Repair Workshops	81
4826	Confectionery and Soft Drink Stores	4,616	4866	Motor Cycle Dealers ..	164
4827	Fish, Chip and Hamburger Shops	1,393	4867	Boat and Caravan Dealers	1,914
4828	Bread and Cake Shops ..	1,971	486	Total	90,328
482	Total	96,104		Other Retailers—	
			4871	Pharmacies	9,681
	Bread and Milk Vendors—		4872	Photographic Equipment Stores	914
4831	Bread Vendors	473	4873	Sporting Goods, Bicycle and Toy Shops	2,397
4832	Milk Vendors	4,446	4874	Newsagents, Stationers and Booksellers	8,216
483	Total	4,919	4875	Antique and Second Hand Goods Dealers	285
			4876	Nurserymen and Florists ..	746
			4877	Retailers n.e.c.	948
				Total	23,187
	Clothing, Fabric and Furniture Stores—		484	Total Retail Establishments	307,644
4841	Furniture and Floor Covering Stores	11,280			
4842	Fabric and Household Textile Stores	1,849			
4843	Men's and Boys' Wear Stores	6,284			
4844	Women's, Girls' and Infants' Wear Stores ..	12,844			
4845	Footwear Stores	5,220			
4846	Shoe Repairers	21			
	Total	37,498			

Census of Retail and Selected Service Establishments, 1968-69
Value of Retail Sales by Industry Class—continued
 (\$'000)

ASIC Code (a)	Industry Class	Retail Sales	ASIC Code (a)	Industry Class	Retail Sales
SELECTED SERVICE ESTABLISHMENTS					
9113	Motion Picture Theatres ..	178	931	Laundries and Dry Cleaners	3
	Restaurants and Licensed Hotels—			Hairdressing and Beauty Salons—	
9211	Cafes and Restaurants ..	786	9321	Men's Hairdressing ..	144
9212	Licensed Hotels, Motels and Wine Saloons	26,450	9322	Women's Hairdressing and Beauty Salons	108
921	Total	27,236	932	Total	252
	Licensed Clubs—			Total Selected Service Establishments	31,834
9221	Licensed Bowling Clubs ..	473			
9222	Licensed Golf Clubs ..	402			
9223	Licensed Clubs n.e.c. ..	3,290			
922	Total	4,165			
TOTAL RETAIL AND SELECTED SERVICE ESTABLISHMENTS					
Total Retail and Selected Service Establishments					339,478

(a) Australian Standard Industrial Classification.

In the next table, details are given of establishments, persons employed and value of retail sales by statistical divisions:

Number of Retail and Selected Service Establishments, Persons Employed and Value of Retail Sales, by Statistical Division 1968-69 r

Statistical Division and Sub-division	Retail and Selected Service Establishments	Persons Employed (a)	Value of Retail Sales (b)
	no.	no.	\$'000
Hobart	1,707	11,548	149,672
Southern	347	1,217	12,640
Tamar	1,292	6,861	84,519
North Eastern	225	849	8,479
Northern	1,517	7,710	92,997
North Western	1,104	5,684	75,706
Western	159	771	8,463
Mersey-Lyell	1,263	6,455	84,169
Tasmania	4,834	26,930	339,478
Urban Hobart	1,504	10,703	139,670
Urban Launceston	959	5,654	71,278

(a) At last pay day in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(b) These figures refer to the total value of all commodities sold retail by all retail establishments and similar sales by selected service establishments.

Quarterly Estimates of Value of Retail Sales

Each quarter, returns of retail sales are collected from a fraction (or sample) of all retail businesses recorded in the most recent census of retail establishments, the fraction being selected to represent the field covered by the census. This sample is varied annually to make provision for 'new' establishments opening up, 'old' establishments closing down and 'old' establishments changing type ('old', in this context, relates to businesses as recorded at the most recent census of retail establishments). The following table presents estimated value of retail sales in Tasmania for annual periods as derived by aggregation of the quarterly retail surveys.

Estimated Value of Retail Sales of Goods by Commodity Groups (a)
(\$ million)

Commodity Group	1966-67	1967-68	1968-69 <i>r</i>	1969-70 <i>r</i>	1970-71 <i>r</i>	1971-72
Groceries	36.5	37.3	41.0	41.7	45.2	50.0
Butchers' Meat	19.4	19.9	19.8	21.0	21.3	22.2
Other Food	24.2	26.1	28.7	30.7	32.6	33.9
Beer, Wine, Spirits	23.3	25.0	26.3	28.7	30.7	32.4
Clothing, Drapery, Piece-goods	39.3	42.4	42.1	45.2	48.1	51.8
Footwear	6.2	6.5	6.7	7.0	7.5	7.9
Domestic Hardware	5.1	5.5	6.1	6.1	6.7	7.5
Electrical Goods	11.7	12.4	12.2	13.3	13.6	15.4
Furniture, Floor Coverings	10.1	11.2	12.1	12.9	13.5	14.4
Chemists' Goods	10.5	10.9	12.2	13.4	14.7	15.5
Newspapers, Periodicals, etc.	7.4	8.1	8.9	9.6	10.3	11.1
Other Goods (b)	21.3	22.6	24.8	26.4	27.9	29.2
Total (excluding Motor Vehicles, etc.)	215.0	227.9	240.9	256.0	272.1	291.3
Motor Vehicles, Parts, Petrol, etc.	79.9	86.3	88.9	102.0	112.8	126.0

(a) Excludes retail sales by manufacturing, mining and wholesale establishments, etc.

(b) Includes sports goods, jewellery, cycles, flowers, plants, etc.

The previous table records sample-derived estimates based on the Retail Census of 1961-62. New estimates have been prepared using as a base the Retail Census of 1968-69; this new series, because of differences in the composition of broad commodity groups and in scope and coverage, is not strictly comparable with the previous series.

WHOLESALE TRADE

Introduction

Censuses and surveys of retail trade were introduced by the Bureau in the late 1940s; a continuous quarterly series shows retail sales for the last 25 years or so in terms of broad commodity groups. Developments in this field occupied all the resources available and the problem of creating a matching wholesale series had to be deferred. However, a pilot census was conducted covering wholesale trading in 1963-64, the aim being to identify the various categories of wholesalers and to discover the various types of operation.

The results of the pilot census were not published but they served to show the definitional framework necessary for a full-scale census, and to highlight differences between retail and wholesale operations (e.g. the greater relative importance in the wholesale sector of sales on commission).

The decision was taken to defer any full-scale wholesale census until 1968-69 when simultaneous censuses were being held in other sectors of the economy, the more relevant being those covering manufacturing and retailing. The link between wholesaling and these two sectors is easily apparent; manufacturers often market through wholesalers, and wholesalers in turn are suppliers of goods to retailers. The inclusion of all three sectors in three simultaneous censuses meant that there were no overlaps or gaps in coverage.

Census of Wholesale Establishments, 1968-69

Introduction

For 1968-69 simultaneous economic censuses were undertaken in respect of wholesale trade and four other sectors (manufacturing, electricity and gas, mining and retail trade). The 1968-69 census was the first full census of wholesale trade conducted by the Bureau. The integrated economic censuses 1968-69 are fully described in Appendix A of the 1972 *Year Book*.

A comparison of the results of the five censuses appears as a special Appendix to this Chapter.

Definition of Wholesale Establishment

All Activities at One Location: In all 1968-69 censuses, the basic census unit, in general, covered all the operations carried on under the one ownership at a single physical location. The *wholesale establishment* is thus one mainly engaged in wholesaling but the data supplied for it encompasses all activities at the location. It therefore covers:

- (i) the wholesaling which is the major activity at the location;
- (ii) any retailing activity at the location; and
- (iii) any manufacturing or other activity at the location.

Exceptions to this total coverage rule are made where any secondary or subsidiary activity (in terms of gross value) exceeds \$1m. Such locations are treated, for statistical purposes, as two or more establishments corresponding to the various kinds of activity carried on.

Administrative Offices and Ancillary Units: The wholesale trade statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the enterprise which owns and operates the establishment. These are units such as head offices, storage premises, transport depots and motor vehicle repair and maintenance workshops. However, their inclusion does not affect the number of establishments, e.g. a wholesale establishment and a separately located ancillary transport depot are counted as one establishment classified according to the activity at the wholesaling location.

Standard Classification: The Australian Standard Industrial Classification (ASIC) defines the industries in the economy for statistical purposes and specifies the scope of the different economic censuses to avoid gaps or overlaps between them. It also sets out standard rules for identifying the statistical units (e.g. establishments) and for coding them to the industries of the classification. Each establishment in the wholesale census is identified in terms of a particular location and all sales, employment, etc. are recorded for that location, regardless of the size of the territory covered, i.e. irrespective of where customers are located. For this reason, all sales, etc. of the wholesale establishments located in the State of Victoria, for example, are credited to Victoria, even though the sales territories may extend over several States. Thus the census results for Tasmania should not be interpreted as covering all wholesale sales made in Tasmania, but as total wholesale sales made by *establishments located in Tasmania*.

Data Concepts

Value of Turnover: *Equals* sales of goods on own account; *plus* transfers out of goods; *plus* commissions received for purchasing and selling; *plus* goods withdrawn from stocks for own use, or for rental or lease; *plus* all other operating revenue.

In this definition, all other operating revenue *includes* repair and service revenue, and leasing revenue from hiring out machinery and equipment without operators for periods exceeding one year, but *excludes* rents and leasing revenue (from other than wholesale activity), interest (other than from hire purchase) and receipts from sales of fixed tangible assets.

Purchases and Selected Expenses: *Equals* purchases of goods for resale and materials for manufacturing; *plus* transfers in of goods; *plus* charges for commission and sub-contract work; *plus* purchases of wrapping and packaging materials and electricity and fuel; *plus* repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses, and sales commission payments.

Value Added: *Equals* value of turnover and other operating revenue; *plus* increase (or *less* decrease) in the value of stocks; *less* purchases and selected expenses.

Value added is the appropriate measure for comparing various industries and can be added for groups of industries without there being any possibility of duplication. A comparison appears as an Appendix to this Chapter.

Transfers: In the previous definitions, the terms, 'transfer in' and 'transfer out' occur. The transactions refer exclusively to transfers between establishments of the same enterprise.

Types of Wholesale Operation

Within each ASIC class and group, wholesale establishments have been further classified by type of operation according to the nature of the functions performed. The basis of this classification is the description of the 'types of operation' reported by businesses for each individual wholesale establishment. The six broad groupings of type of operation, shown in the following tables, are:

(i) *Primary Produce Dealers or Agents*: Establishments mainly purchasing produce direct from farmers, graziers, fishermen, etc. or selling produce on commission to such producers; included are all establishments of the country 'stock and station agent' type.

(ii) *Wholesale Merchants*: Establishments mainly selling goods owned by the enterprise and not bought direct from primary producers. A further dissection separates out 'import and/or export merchants' as a special sub-set.

(iii) *Manufacturers' Sales Branches Holding Stocks*: Establishments mainly selling goods manufactured by other establishments of the same enterprise *provided* (a) the sales branch is separately located from all manufacturing establishment locations; and (b) it supplies goods direct to customers from stocks physically held at premises occupied or controlled by the branch itself.

(iv) *Commission Agents or Brokers*: Establishments mainly selling or purchasing goods on commission for other enterprises (except those selling on behalf of primary producers, included in (i) previously; and on behalf of oil companies, included in (v) following).

(v) *Petroleum Distributors*: Establishments mainly dealing in petroleum products, either on account of the enterprise or on commission for other enterprises.

(vi) *Repairers and Lessors of Machinery and Equipment*: Establishments mainly repairing farm machinery or business machines, or leasing machinery or equipment without operators for periods exceeding one year. These activities are included in wholesale trade because they are usually performed by establishments whose main activity is the wholesale distribution of machinery. Other repair activity which is usually performed by manufacturing establishments is, of course, included in the manufacturing census.

Result of the 1968-69 Census

The tables that follow show some of the main items recorded in the 1968-69 census of wholesale establishments. A peculiarity of wholesale trading is that there are two types of sales: (i) those made on own account; and (ii) those made on commission. While 'turnover' includes value of sales on own account it includes only the commission received in respect of sales on commission.

Census of Wholesale Establishments, 1968-69 r
Summary of Operations by Broad Type of Operation

Type of Operation	Establishments Operating at 30 June	Persons Employed (a)			Wages and Salaries	Sales on Com- mission (b)
		Males	Females	Total		
	no.	no.	no.	no.	\$m	\$m
Primary Produce Dealers or Agents	87	1,279	356	1,635	4.7	53.1
Wholesale Merchants— Import and/or Export	57	330	127	457	1.2	1.6
Other	500	3,982	1,080	5,062	13.3	5.4
Manufacturers' Sales Branches	98	560	160	720	2.2	12.1
Commission Agents or Brokers	102	224	146	370	0.5	21.9
Petroleum Distributors	56	392	71	463	1.5	54.9
Repairers and Lessors of Machinery and Equip- ment	20	59	9	68	0.2	..
Total Wholesale Trade	920	6,826	1,949	8,775	23.6	149.1

Census of Wholesale Establishments, 1968-69 r
Summary of Operations by Broad Type of Operation—continued

Type of Operation	Turnover	Stocks at 30 June		Purchases, Transfers In and Other Selected Expenses	Value Added
		1968	1969		
	\$m	\$m	\$m	\$m	\$m
Primary Produce Dealers or Agents ..	45.4	6.1	6.1	35.1	10.3
Wholesale Merchants— Import and/or Export	24.5	3.3	3.2	21.3	3.2
Other	178.9	25.0	27.7	148.9	32.8
Manufacturers' Sales Branches	31.9	3.0	3.2	25.6	6.5
Commission Agents or Brokers	3.5	0.2	0.2	2.1	1.5
Petroleum Distributors	23.3	1.4	1.9	17.5	6.4
Repairers and Lessors of Machinery and Equipment	1.0	..	0.1	0.4	0.6
Total Wholesale Trade	308.6	39.1	42.4	250.7	61.2

(a) At last pay period in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(b) The commission from these sales is included in the calculation of 'value added' (since commission received is a component of 'turnover') but the sales themselves are excluded from the calculation.

The next table shows a broad geographical distribution of the main wholesale census items:

Census of Wholesale Establishments, 1968-69: Main Items by Statistical Division

Statistical Division and Sub-division	Establishments Operating at 30 June	Total Persons Employed (a)	Wages and Salaries	Sales on Commission (b)	Sales on Own Account and Transfers Out	Value Added
	no.	no.	\$m	\$m	\$m	\$m
Hobart	395	4,008	11.1	64.9	144.7	29.1
Southern	44	241	0.4	1.2	4.2	0.8
Tamar	283	2,674	7.1	47.0	76.6	16.4
North Eastern ..	32	83	0.2	0.2	2.9	0.5
Northern	315	2,757	7.3	47.2	79.5	16.9
North Western ..	161	} n.p.	n.p.	n.p.	n.p.	n.p.
Western	5					
Mersey-Lyell	166	1,769	4.9	35.8	58.3	14.4
Tasmania	920	8,775	23.6	149.1	286.7	61.2
Urban Hobart	384	3,921	10.9	63.1	144.0	28.7
Urban Launceston ..	251	2,578	6.9	35.1	74.5	15.7

(a) At last pay period in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(b) The commission from these sales is included in the calculation of 'value added' (since commission received is a component of 'turnover') but the sales themselves are excluded from the calculation.

INTEGRATED ECONOMIC CENSUSES

Introduction

In the 1972 *Year Book*, Appendix A gave a detailed description of the Australian Integrated Economic Censuses conducted by the Bureau of Census and Statistics for the 1968-69 financial year.

The Tasmanian results of these five simultaneous censuses appear in the appropriate chapters of this book; references are:

- (i) *Census of Manufacturing Establishments*, Chapter 9;
- (ii) *Census of Mining Establishments*, Chapter 8;
- (iii) *Census of Wholesale Establishments*, Chapter 10;
- (iv) *Census of Retail Establishments and Selected Service Establishments*, Chapter 10;
- (v) *Census of Electricity and Gas Establishments*, Chapter 9.

The purpose of this section is to bring together the results of the five 1968-69 censuses, and those for later years when a less comprehensive coverage of ASIC Divisions was attempted. Comparison and combination is possible since common definitions and concepts were employed in each.

Value Added, Employment, etc.

'Value added' is a concept allied to 'net value of production'; the former is a new value concept employed in the integrated censuses just specified while the latter is still employed in series related to primary production (excluding mining). Although broadly analogous, the two concepts are differently defined and direct comparisons are therefore not made.

The following table shows value added as recorded in each census:

Integrated Economic Censuses 1968-69 r: Value Added

Classification of Establishments (a)	Amount	Proportion of Total	Per Head of Mean Population
	\$'000	per cent	\$
Mining	44,286	10.1	115.71
Manufacturing	197,464	45.1	515.96
Electricity and Gas	33,437	7.6	87.37
Wholesaling	61,210	14.0	159.94
Retailing	79,380	18.1	207.42
Selected Services (b)	21,717	5.0	56.75
Total	437,494	100.0	1,143.15

(a) As defined in the Australian Standard Industrial Classification.

(b) Comprises: picture theatres, restaurants, licensed hotels and clubs, laundries, dry cleaners, hairdressing and beauty salons.

Definition of Value Added

Value Added equals turnover plus increase in stocks minus purchases, transfers in and selected expenses; it is, broadly speaking, the surplus from which establishments meet salaries and wages, interest, rent, depreciation and overheads; the final residue is then available for appropriation as profits.

Turnover is the sum of: (i) sales; (ii) transfers out; (iii) bounties and subsidies on production; (iv) selling and purchasing commissions; (v) capital work done for own use or for rental or lease; and (vi) all other operating income *excluding* revenue from rent and leasing, interest other than from hire purchase, dividends and sales of fixed tangible assets.

Purchases and Selected Expenses is the sum of: (i) purchases and transfers in of materials and goods; (ii) purchases of fuel; (iii) purchases of packaging, etc. materials, and electricity and gas; (iv) repair and maintenance expenditure; (v) charges for sub-contract and commission work; (vi) outward freight and cartage; (vii) motor vehicle running expenses; and (viii) sales commission payments.

Comparison with Primary Industry Series

As previously explained, it is not possible to make a direct comparison between net value of production in the primary industry series and value added in the integrated census series. However, the net value of production series are included in Chapter 8 in the special Appendix. Value of Production. Net value of production for the rural group of primary industries in 1971-72 was \$77.6m (1968-69, \$74.1m); for the non-rural group (excluding mining) \$24.4m (1968-69, \$18.0m); and for both groups \$102.0m (1968-69, \$92.1m).

The last year in which manufacturing and mining values could be directly compared with those in the primary production series was 1967-68; in that year for example, the net value of production for the rural group of primary industries (\$62.7m) was approximately one third of the corresponding manufacturing figure (\$198.0m). A somewhat similar relativity can be observed in 1968-69 between net value of production for the rural group of primary industries (\$74.1m) and value added in the manufacturing census (\$197.5m). Thus, even if a direct comparison cannot be made, it is still possible to draw very broad conclusions about the relative economic significance of various types of activity by examining the net value of production series in Chapter 8 and the value added series in this section.

Other Comparisons

The next table combines the results of the five simultaneous censuses to show the derivation of value added:

Integrated Economic Censuses 1968-69 r: Derivation of Value Added
(\$ million)

Classification of Establishments (a)	Turnover	Stocks at 30 June		Purchases, Transfers In and Selected Expenses	Value Added (b)
		1968	1969		
Mining	(1) 63.1	(2) 8.1	(3) 9.5	(4) 20.1	(5) 44.3
Manufacturing	487.1	94.6	104.7	299.7	197.5
Electricity and Gas	34.8	5.1	4.7	0.9	33.4
Wholesaling	308.6	39.1	42.4	250.7	61.2
Retailing	340.4	38.8	42.3	264.5	79.4
Selected Services (c)	48.8	1.3	1.4	27.1	21.7
Total	1,282.7	187.0	204.9	863.1	437.5

(a) As defined in the Australian Standard Industrial Classification.

(b) (5) = (1) minus (2) plus (3) minus (4).

(c) Comprises: picture theatres, restaurants, licensed hotels and clubs, laundries, dry cleaners, hairdressing and beauty salons.

The following table shows the number of establishments, persons employed and wages and salaries:

Integrated Economic Censuses 1968-69 r: Number of Establishments, Persons Employed and Wages and Salaries

Classification of Establishments (a)	Number of Establishments (b)	Persons Employed (c)			Wages and Salaries
		Males	Females	Persons	
Mining	75	no. 3,932	no. 145	no. 4,077	\$m 17.2
Manufacturing	951	25,340	6,729	32,069	95.1
Electricity and Gas	5	2,432	194	2,626	10.6
Wholesaling	920	6,826	1,949	8,775	23.6
Retailing	4,007	10,871	10,004	20,875	31.5
Selected Services (d)	835	2,567	3,488	6,055	9.2
Total	6,793	51,968	22,509	74,477	187.1

(a) As defined in the Australian Standard Industrial Classification.

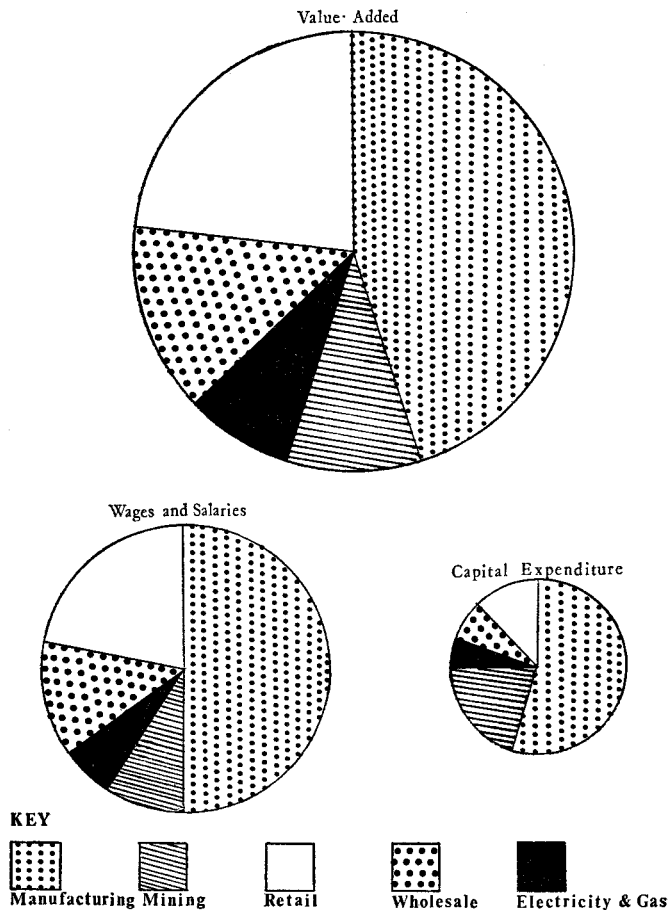
(b) At 30 June 1969.

(c) At last pay day in June; includes working proprietors and unpaid helpers.

(d) Comprises: picture theatres, restaurants, licensed hotels and clubs, laundries, dry cleaners, hairdressing and beauty salons.

To complete the comparisons made in the previous tables a pie-chart follows showing value added, wages and salaries and capital expenditure as recorded in the 1968-69 round of economic censuses. It should be noted that 'wages and salaries' are a sub-set of 'value added,' the former being one of the charges that has to be met from the latter.

ECONOMIC CENSUSES, 1968-69

*Development after 1968-69 Censuses*

Principal items from Economic Censuses conducted after 1968-69 follow:

Mining, Manufacturing, Electricity and Gas Censuses, 1969-70 to 1971-72: Number of Establishments, Employment, Wages and Salaries and Value Added

ASIC Classification of Establishments				Number of Establishments (a)	Persons Employed (b) (No.)	Wages and Salaries (\$'000)	Value Added (\$'000)
Mining	1969-70 .. ..	..	..	78	4,312	18,544	44,286
	1970-71 .. ..	..	..	59	4,669	22,641	58,096
	1971-72 (c) .. ..	..	..	51	4,499	25,349	63,115
Manufacturing—	1969-70 .. ..	..	..	945	31,760	102,104	226,083
	1971-72 p .. ..	..	..	931	30,936	120,708	245,036
Electricity and Gas—	1969-70 .. ..	..	..	6	2,754	11,965	38,722
	1971-72 p .. ..	..	..	5	2,971	14,658	45,749

(a) At 30 June.

(b) Average over whole year.

(c) The 1971-72 Census results excluded 'small' tin miners whose sales were less than \$20,000.

Economic censuses for the manufacturing and electricity and gas sectors were not undertaken for 1970-71. (For more detailed results of post-1968-69 economic censuses covering the mining, manufacturing and electricity and gas sectors, see Chapters 8 and 9.) No economic censuses have been conducted for the retail or wholesale sectors since the 1968-69 censuses. It is planned that censuses covering these two sectors will be conducted on a regular five-yearly basis.

Chapter 11

TRANSPORT AND COMMUNICATION

PORT AUTHORITIES

Introduction

Tasmania has a number of ports capable of accommodating overseas vessels; they are sited on the Derwent and Huon Rivers in the south (Hobart and Port Huon); in Spring Bay on the east coast; on the Tamar in the north (Beauty Point, Inspection Head, Long Reach and Bell Bay); on the Mersey (Devonport), in Emu Bay (Burnie) and at Port Latta, all in the north-west. All these ports provide depths of approximately 30 feet or more of water at berths; Port Latta provides a depth of 52 feet nearly a mile off-shore.

Interstate and intrastate trade passes through the main ports and operates as well through ports at Strahan, Stanley, Ulverstone, Currie (on King Island) and Lady Barron (on Flinders Island). A new interstate and intrastate port at Grassy, King Island, was completed in early 1972.

This section deals primarily with the authorities which control the harbours but a brief description is given of the main ports.

Port of Hobart

Location

The approach to the Derwent and the Port of Hobart is made through a very wide strait between Cape Queen Elizabeth (Bruny Island) and Cape Raoul (Tasman Peninsula), approximately 30 miles south-east from the city. The mouth of the Derwent, three and a half miles wide, lies 12 miles south-east of the port which is built upstream on the western bank in a U-shaped cove; the opposite bank lies one and a half miles away to the east. The shores of the Derwent and the arms of the cove act as natural breakwaters.

Description

The present main port of Hobart is extremely compact, being U-shaped with only 2,000 feet or less separating the southern and northern arms. The southern arm is devoted to Princes Wharf with berths numbered one to four; the centre contains Elizabeth Street Pier and Kings Pier while the northern arm is made up of the Macquarie Wharves with berths one to four. Most wharves and sheds in the main port are of concrete construction. A tanker berth, formerly sited on Macquarie Point, about 1,000 feet north of Macquarie Wharves, has been decommissioned and work has started on the redevelopment of the whole area to provide additional berths.

In the 1960s a major development was the establishment of special facilities for roll-on roll-off vessels. Princes Wharf No. 1 berth was converted into a specialised terminal with a drive-on ramp and vehicle marshalling area, the *Seaway Queen* and *Seaway King* first berthing there in June and August 1964 respectively. To accommodate the Sydney-Hobart vessel *Empress of Australia*, extensive land reclamation was carried out to the south of Princes Wharf No. 3 berth. The new facility, named No. 4 berth, involved a further wharf, a drive-on ramp, an extensive marshalling area and a terminal building. The *Empress* commenced service in January 1965 but ceased her Hobart run in mid-1972 when the passenger-cargo ferry *Australian Trader* took over the Hobart-Sydney service.

The most striking feature of the Port of Hobart is the ease with which large vessels can be brought to berth. Tides present no problem, the rise and fall being four feet six inches (average approximately two feet), and dredging of approach channels has never been necessary.

Subsidiary Ports

In addition to the main port in the heart of the city, there are a number of subsidiary outlets serving the south of the State. Near Snug, on D'Entrecasteaux Channel, is the private wharf of the Electrona carbide works. Port Huon wharf, located on the west bank of the Huon River near Geeveston, is in the centre of the principal orcharding area and used mainly for fruit exports. Also based on the Huon River (at Hospital Bay) is the A.P.M. Ltd private wharf (for export of paper pulp). At the port of Spring Bay, near Triabunna on the east coast, accommodation has been provided for bulk carriers loading woodchips for Japan. In the Derwent itself, two and a half miles upstream from the main port, is a tanker berth at Sells Point where bulk petrol and oil are stored; tankers pass under the 155 feet high navigation span of the Tasman Bridge on their way.

The Sells Point area is being developed as a petroleum products storage area and has replaced the Macquarie Wharf facilities as Hobart's petroleum installation. A mile upstream from Sells Point is the Electrolytic Zinc Company Ltd private wharf at Risdon. At Boyer, located nearly 20 miles upstream from the main port, is the Australian Newsprint Mills Ltd plant. Newsprint is ferried to the main port by barge.

Administration

The Marine Board of Hobart is the authority controlling the main ports of Hobart, Port Huon and the Port of Spring Bay. When the Marine Board of Strahan ceased to function on 30 September 1970, Parliament extended the responsibilities of the Marine Board of Hobart to cover the control and operation of the Port of Strahan. The Board's jurisdiction covers the west, south and east coasts of Tasmania between the parallel of $41\frac{1}{2}^{\circ}$ South latitude and Cape Portland.

Works Programme

The 1972-73 works programme included: (i) completion of the new multi-storey Marine Board office building; (ii) installation of navigation lights at Hopwood Point and Sheepwash Bay in D'Entrecasteaux Channel; (iii) design and construction of a 50 foot steel pile frame; (iv) upgrading of the pileyard gantry to 25 ton capacity; and (v) commencement of dredging at Macquarie Berths Nos 2 and 3, Sells Point Wharf and Risdon Berths to a depth of 36 feet.

Work is progressing on the Macquarie Point Development to provide three new berths and a 20 acre marshalling area. Currently under construction are two roll-on roll-off berths (Macquarie Berths No. 5 and No. 6), 11 acres of marshalling area and two large transit sheds. Scheduled completion date for this stage of the project is late 1974.

Port of Launceston

Location

The port of Launceston is situated on the River Tamar, which originates at the confluence of the North and South Esk Rivers at the City of Launceston and flows 40 miles to Bass Strait where deep water and broad expanses of river provide a valuable natural harbour. In this area, encompassing Bell Bay, Beauty Point and Long Reach, are located the major activities of the Port of Launceston. A tidal range of between 10 and 12 feet creates strong tidal currents, which, by natural scour, eliminate the need for any maintenance dredging in the lower reaches of the river.

Because extensive areas of deep water frontage are available, the development of the port is decentralised with the main operations located as follows:

- (i) *Bell Bay*: Wharves include two tanker berths, a general cargo and bulk berth, a passenger berth, roll-on roll-off facilities and a special bulk berth serving Comalco Aluminium Ltd. One roll-on roll-off berth serves Australian National Line vessels and a common-user roll-on roll-off berth is also available. The Bell Bay site is on the eastern shore, some eight miles upstream from the mouth of the Tamar. The Bell Bay and Long Reach areas have been linked to the State railway system.
- (ii) *Long Reach*: Port facilities have been developed upstream from Bell Bay, the main function being export of woodchips from adjacent plants.
- (iii) *Inspection Head*: Overseas berths on the western bank, opposite Bell Bay, for shipment of fruit, frozen meat and general cargo. Large cool storage and freezer facilities are provided.
- (iv) *Beauty Point*: Bulk storage and special loading facilities for tallow as well as general cargo facilities. Location is on the western bank, half a mile upstream from Inspection Head.
- (v) *Kings Wharf, Launceston*: Berths for inter and intrastate trade; facilities also include a graving dock and fitting out berths for small ship docking and repair.

Description

All berths and facilities now in service in the port have been constructed since about 1950 and are, therefore, of modern standard.

Channel and lighting improvements in the lower reaches, have been carried out over recent years, permitting vessels of up to 50,000 tons deadweight to work the river for 10 miles from Bass Strait to the site of the new woodchip berths in Long Reach. The channel improvement works have been designed to provide for the rapidly growing industrial complex at Bell Bay which is creating an ever increasing demand for large bulk carriers.

Administration

The port is administered by the Port of Launceston Authority whose jurisdiction covers the full length of the River Tamar, together with the northern coastline westward to Badger Head and eastward to Cape Portland.

Port of Devonport

Location

The Port of Devonport is situated on the Mersey River within one mile of the coast. The entrance is sheltered by Mersey Bluff on the west and by a retaining wall extending half a mile northward from the eastern shore of the river. The river was always a natural harbour for small craft and its development as a major port by extensive dredging and engineering works has resulted in a secure harbour for large ships.

Description

The main harbour is formed around two turning basins each 850 feet in diameter with wharves on both banks providing 3,500 lineal feet of berthage.

The western bank contains four overseas and interstate berths and one specialised cattle jetty. These berths are provided with storage sheds, oil pipelines, wheat silos, bulk cement silos, as well as one of the largest and most modern cold storage facilities in the State. Provision has also been made for the handling of bulk commodities and heavy lifts while all berths are connected to the State railway network.

Two terminals for roll-on roll-off and container cargo are located on the eastern bank; one is leased to the Australian National Line and the other is a common-user facility. Both are equipped with stern loading ramps and cranes for lift-on lift-off cargo. Extensive vehicle marshalling and cargo assembly areas are provided with land available for expansion. Approx-

imately 100,000 passengers pass through the No. 1 Terminal each year. In July 1972 the *Empress of Australia* replaced the *Princess of Tasmania* on the passenger run to and from Melbourne. The A.N.L. vessels *Bass Trader*, *Sydney Trader*, *Brisbane Trader* and *Townsville Trader* maintain a regular cargo service from both terminals.

A 30-ton portal travelling crane at No. 2 Berth is capable of handling all types of cargo units. For the speedy handling of bulk cargoes a 14-ton grab crane and 40-ton capacity hopper are available as auxiliaries to the crane. This berth is designed to take distributed loads up to 1,200 lb per square foot or I.S.O. 20-ton containers stacked two high. The container vessel *Echuca* maintains a weekly feeder service from this berth, which handles the majority of Tasmania's international container traffic.

The Port of Burnie

Location

The ports of Hobart, Launceston and Devonport all lie within the shelter of rivers but the Port of Burnie, on Emu Bay, was built out into the open sea in the lee of Blackmans Point; immediately to the west of the Point is a beach on which breaks the short surf of Bass Strait which can produce very rough seas, the nearest land being the Victorian coast 200 miles to the north.

Description

The shelter necessary for all-weather use of the port is provided by a 1,250-foot breakwater anchored to Blackmans Point, and running out to sea with a south-east orientation. The wharves are thus protected by the Point and by the breakwater from swells coming in from the west or north, the two quarters from which heavy seas are feared. Ocean Wharf is constructed immediately in the lee of the breakwater, the two structures appearing as one, and other berths are provided by piers parallel to the breakwater but lying further south.

Future development of the port could not be undertaken without the provision of further protection, and an island breakwater sited north-east from the end of Ocean Wharf has been constructed. The breakwater, consisting of concrete caissons 1,600 feet long, is orientated south-east and is calculated to give ample protection for up to 2,000 feet of berthage south of existing piers. An interesting feature is the use of the lee of the island breakwater for a tanker berth for both petroleum and sulphuric acid, the fuel being pumped to the land along a submarine pipe, and the sulphuric acid pumped to the berth over a bridge spanning the gap between the two breakwaters.

In 1961 special facilities were provided to handle the roll-on roll-off vessel *Bass Trader*. In 1969 the first phase of the southern port development, which included new facilities for roll-on roll-off vessels, was commissioned by the maiden visit, to the port, of the *Australian Trader*. The new terminal is used regularly by five roll-on roll-off vessels.

Large scale storage and handling facilities for metal concentrates have been provided within the port complex. The major factors which brought about the erection of these facilities were: (i) commencement of shipment of copper concentrates from Queenstown; and (ii) increased shipments of metal concentrates from Rosebery, Renison and Luina.

The major companies involved provided the facilities in the port area, while the Burnie Marine Board, at its own cost, had the necessary bulk cargo berth constructed as part of the same complex.

Port Latta (Circular Head)

A deep-water offshore terminal capable of accommodating bulk ore carriers of 60,000 to 90,000 tons capacity has been constructed at Port Latta for the export of iron ore pellets to Japan. In 1972-73 2,480,000 tons of ore were exported from the port.

The loading facility consists of a four-foot wide conveyor belt which carries pellets to two swivel loaders located a mile offshore. Vessels moor in 52 feet of water to take on pellets, the system having a discharge capacity of about 3,000 tons per hour.

Constitution of Port Authorities

Establishment of Boards

Operation of Tasmania's chief ports ceased to be a direct function of the government of the colony in 1857 when legislation was passed to set up the marine boards of Hobart and Launceston. Each board consisted of five wardens; the mayor and the collector of customs were *ex officio* wardens, the remaining three members being appointed as nominees of the respective Chambers of Commerce. In 1867 the Governor was empowered to create other boards, such bodies to consist of three wardens appointed by the Governor; within a year, boards had been constituted under the titles Mersey, Circular Head and Table Cape.

Boards of Hobart and Launceston

The *Marine Boards Act* 1889 created a special electorate for the Hobart and Launceston boards, the nine wardens for each to be elected by ship-owners, importers and exporters. The respective collectors of customs were required annually to compile rolls of these users of the ports and the number of votes each elector could exercise was proportional to his financial interest; for example, an exporter of goods valued from \$400 to \$3,999 had one vote, \$4,000 to \$9,999 two votes, and over \$10,000, three votes. Importers received similar voting powers in proportion to the wharfage paid while shipowners' votes were proportional to tonnage of their vessels. It was further provided that three wardens should retire annually and the master warden be elected by board members. By an amending Act in 1895, the voting powers of importers were divorced from wharfage paid, and placed on the same basis as those exercised by exporters.

The special electorate just described continues to elect the wardens of the Hobart Marine Board; the scale of values affecting the number of votes to be exercised by importers and exporters also remains unchanged. However, in the case of the marine board for Launceston, the system of the special electorate was abolished in 1902. All Launceston citizens on the rolls for the House of Assembly became eligible to cast single votes, a right extended in 1910 to citizens in the other municipalities bordering the Tamar. In 1916 with the adoption of the Hunter scheme for improvements affecting the whole length of the river, changes were made to increase the number of wardens by representatives from the bordering municipalities. The *Marine Act* 1921 reduced the number of wardens to five, restricted eligibility for standing as warden to citizens of Launceston and changed the voting qualifications so that marine board electors had to be those qualified to vote at an election of aldermen for the City of Launceston. More recently, electors in Beaconsfield and George Town have again been given voting rights.

Constitution of Boards

The present system of appointing or electing wardens is summarised as follows:

Election or Appointment of Port Authorities

Authority	Number of Wardens	System of Election or Appointment of Wardens
Hobart Marine Board	9	Special electorate of ship-owners, importers and exporters
Port of Launceston Authority	5	Electors of Launceston, Beaconsfield and George Town as for local government elections
Burnie Marine Board	8	} Municipal electors within proclaimed areas
Devonport Marine Board	11	
Circular Head Marine Board	5	
King Island Marine Board	5	
Flinders Island Marine Board	3	Municipal electors

Navigation and Survey Authority of Tasmania

The authority was constituted in 1963 to implement sections of the *Marine Act* 1921 relating to the safety of life and property at sea. Member marine boards contribute equally to the costs of running the Authority; the income is derived from survey and service fees.

Finances of Port Authorities

The principal sources of revenue of the port authorities are shipping tonnage rates and import and export wharfage rates; other sources are charges for pilotage services and the hiring of equipment. Expenditure is summarised under the heading 'works and services' which includes the provision of ordinary port services (e.g. pilotage, tug assistance, etc.), the maintenance of the port (e.g. dredging, etc.) and the improvement of the port (e.g. new wharfs, new berths, etc.). To raise the additional funds required to finance port improvements, the authorities borrow money subject to State Treasury approval, the Treasury acting on behalf of the Australian Loan Council.

Port Authorities
Receipts and Expenditure: All Funds, 1971-72
 (\$'000)

Particulars	Authority								Total
	Hobart (a)	Laun- ceston	Dev- onport	Burnie	Circ- ular Head	King Island	Flind- ers Island	Smith- ton	
REVENUE FUNDS									
Receipts—									
Warfage Charges	1,096	869	861	955	14	57	27	..	3,881
Other Service Charges	393	1,009	348	292	45	6	3	1	2,098
Plant Hire	441	473	162	187	..	5	..	..	1,268
Government Grants	30	..	..	..	27	..	..	..	57
Other (b)	196	58	56	133	..	5	..	..	449
Total	2,156	2,410	1,427	1,567	86	73	30	1	7,752
Payments (c)—									
Administration	216	303	139	181	7	13	1	1	861
Debt Charges—									
Interest	131	421	414	722	34	4	12	..	1,738
Redemption and Sinking Fund Contributions	294	205	268	291	28	17	3	..	1,106
Works and Services	917	1,223	431	308	11	28	10	1	2,928
Other	222	229	64	32	1	12	2	..	562
Total	1,778	2,380	1,316	1,535	81	73	27	2	7,194
LOAN FUND									
Receipts, Loan Raisings, etc. ..	1,800	1,137	450	700	501	..	10	..	4,597
Payments (d)	2,129	1,345	423	833	522	..	10	..	5,261
REVENUE AND LOAN FUNDS—CLOSING BALANCES LESS OPENING BALANCES (e)									
Net Movement	+57	+14	+182	+110	−16	..	+3	..	+350

(a) From 1 October 1970, Strahan was incorporated in Hobart.

(b) Includes interest receipts, sundry licences, fines and discounts received.

(c) Excludes amounts applied from reserves for capital purposes.

(d) Includes amounts applied from reserves for capital purposes.

(e) Includes net movement in balance sheet items such as debtors, creditors, trust accounts, etc.

The next table summarises the transactions of all port authorities:

Port Authorities
Receipts and Expenditure: All Funds, Summary
 (\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
REVENUE FUNDS					
Receipts—					
Wharfage Charges	3,064	3,193	3,565	3,660	3,881
Other Service Charges	1,480	1,783	1,839	1,880	2,098
Plant Hire	896	966	982	1,085	1,268
Government Grants	36	30	30	30	57
Other (a)	418	301	642	477	449
Total	5,894	6,273	7,058	7,133	7,752
Payments (b)—					
Administration	558	553	625	803	861
Debt Charges—					
Interest	1,149	1,246	1,403	1,564	1,738
Redemption and Sinking Fund Contributions	771	780	897	971	1,106
Works and Services	2,113	2,350	2,554	2,618	2,928
Other	279	308	344	411	562
Total	4,871	5,236	5,822	6,366	7,194
LOAN FUND					
Receipts—					
Loan Raisings	2,598	2,837	3,910	4,471	4,590
Other	1	..	20	..	7
Total	2,599	2,837	3,930	4,471	4,597
Payments (c)	2,810	5,536	4,140	5,042	5,261
REVENUE AND LOAN FUNDS—CLOSING BALANCE LESS OPENING BALANCE (d)					
Net Movement	+835	−1,465	+839	+170	+350

(a) Includes interest receipts, sundry licences, fines and discounts received.

(b) Excludes amounts applied from reserves for capital purposes.

(c) Includes amounts applied from reserves for capital purposes.

(d) Includes net movement in balance sheet items such as debtors, creditors, trust accounts, etc.

Loan Debt and Borrowing

The loan debt of the port authorities has increased substantially in recent years. The following table shows the growth of this debt in total and gives individual details for the four principal authorities:

Port Authorities
Loan Debt of Principal Authorities at End of Year
(\$'000)

Authority	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Hobart	2,559	2,658	2,760	3,394	4,378	5,885
Launceston	2,995	3,341	4,399	5,200	6,504	7,441
Devonport	4,734	5,258	5,766	6,404	6,921	7,118
Burnie	9,740	10,443	10,782	11,554	12,462	12,950
Other	334	549	669	912	792	(a) 1,254
Total	20,361	22,249	24,376	27,464	31,057	34,648

(a) Comprised: Circular Head, \$998,000; Flinders Island, \$194,000; King Island, \$62,000.

The next table shows a summary of annual borrowings, aggregate debt and the provision for loan redemption.

Port Authorities
Loan Raisings, Loan Debt and Provisions for Redemption
(\$'000)

Year	Total Loan Raisings During Year (a)	Loan Debt at End of Year			Provisions for Loan Redemption at End of Year (b)
		To State Government	To Other Creditors	Total	
1961-62	1,930	16	10,877	10,893	161
1962-63	2,167	..	12,671	12,671	187
1963-64	2,631	..	14,737	14,737	221
1964-65	2,842	..	17,102	17,102	300
1965-66	2,055	..	18,617	18,617	366
1966-67	2,310	..	20,361	20,361	525
1967-68	2,598	..	22,249	22,249	608
1968-69	2,837	..	24,376	24,376	683
1969-70	3,910	..	27,464	27,464	743
1970-71	4,471	..	31,057	31,057	874
1971-72	4,590	..	34,648	34,648	999

(a) No loans were raised from the State Government during the period covered by the table.

(b) Balance of sinking funds and loan redemption provision accounts at end of year.

SHIPPING AT TASMANIAN PORTS

System of Record

The shipping statistics contained in this section were compiled on a new basis from 1 July 1966 and are not fully comparable with statistics published for previous periods. Prior to this date, shipping statistics were compiled from details assembled and supplied by the Department of Customs and Excise and by State port authorities. Since 1966-67 Tasmanian shipping statistics have been compiled from details submitted by shipping companies or their representatives, through the Department of Customs and Excise, for each arrival and each departure of a vessel. Not all vessels which arrived at, and departed from, ports in Tasmania are included in the new series of shipping statistics; the following are now excluded:

- (i) naval vessels;
- (ii) yachts and other craft used for pleasure;
- (iii) foreign fishing vessels that neither load nor discharge cargo;
- (iv) Australian-registered fishing vessels operating from Tasmanian ports;
- (v) geographical, seismic and oceanographic survey vessels;
- (vi) offshore oil drilling rigs and vessels servicing them; and
- (vii) vessels of 200 registered net tons and under.

Movements of Vessels

The inward and outward movements of vessels using Tasmanian ports were classified according to type of voyage and not according to the type of vessel. Each movement of a vessel was allocated to one of the following:

- (i) overseas direct;
- (ii) overseas via other State;
- (iii) interstate direct;
- (iv) overseas via port in Tasmania;
- (v) interstate via port in Tasmania; and
- (vi) intrastate.

Addition of the first three classifications (overseas and interstate movements) gives an unduplicated total for Tasmania. The inclusion of the other three classifications (intrastate or coastal movements) must be taken into account to reflect the volume of shipping arriving at, or departing from, individual ports in Tasmania.

However, for 1969-70, it was decided that classification by type of voyage was unsatisfactory in two particular categories, namely:

- (ii) overseas via other State; and
- (iii) interstate direct.

While vessels confining their operations to Australian waters could never be associated with category (ii), it was nevertheless possible for vessels engaged in overseas voyages to undertake movements classified under category (iii). For example, a ship bound for the U.K. could be sailing Sydney-Hobart-Melbourne-London. The arrival in Hobart, under the pre-1969-70 classification, could be called 'interstate direct' as would the arrival in Melbourne.

For 1969-70 and following years, the classification has been varied so that categories (ii) and (iii) are based on the type of vessel, not on the type of movement. Thus, in terms of the previous example, the U.K.-bound ship's arrival both in Hobart and Melbourne would be classified 'overseas via other State', and not 'interstate direct'.

Tonnage of Vessels

The tonnage of a vessel may be expressed as: (i) gross tonnage; (ii) net tonnage; and (iii) deadweight tonnage. The concept used in the following tables is *net tonnage* which is expressed in units of 100 cubic feet (i.e. 100 cubic feet equals one ton) and represents the volume of enclosed space which can be utilised for cargo or passengers.

Overseas and Interstate Shipping

The following tables show the number of vessels entered Tasmanian ports and their net tonnage. The details are restricted to entries classified as overseas and interstate movements and exclude coastal movements of vessels.

Shipping: Overseas and Interstate (a)
Vessels Entered Ports in Tasmania, 1971-72

Port of Entry	Overseas				Interstate Direct		Total Vessels Entered	
	Direct		Via Other State					
	No.	Net Tons ('000)	No.	Net Tons ('000)	No.	Net Tons ('000)	No.	Net Tons ('000)
Hobart ..	56	493	102	534	378	733	536	1,760
Burnie ..	10	50	64	352	259	777	333	1,179
Currie ..	..	..	..	..	1	6	1	6
Devonport ..	4	13	20	105	400	775	424	894
Lady Barron ..	..	..	..	..	24	15	24	15
Launceston ..	15	71	75	298	305	957	395	1,326
Stanley ..	32	583	6	154	3	22	41	758
Total ..	117	1,209	267	1,443	1,370	3,285	1,754	5,937

(a) Excludes intrastate shipping.

Definitions

In a later table, figures are given for total vessels entered and for total net tonnage associated with each port; the figures in each case are higher than those shown in the previous table since they include intrastate movements.

The classification 'overseas' in the preceding table is now much more meaningful since, from 1969-70, the category 'interstate direct' is not used to describe movements of ships engaged in overseas travel voyaging from one Australian State to another; the category now used is 'overseas via other State'.

Shipping: Overseas and Interstate (a), Summary
Vessels Entered Ports in Tasmania

Year	Overseas				Interstate Direct		Total Vessels Entered	
	Direct		Via Other State					
	No.	Net Tons ('000)	No.	Net Tons ('000)	No.	Net Tons ('000)	No.	Net Tons ('000)
1962-63 ..	83	289	331	1,447	1,200	1,739	1,614	3,474
1963-64 ..	81	275	296	1,353	1,131	1,719	1,508	3,346
1964-65 ..	83	281	238	994	1,151	2,136	1,472	3,412
1965-66 ..	123	331	264	1,092	1,258	2,464	1,645	3,887
1966-67 (b) ..	87	321	160	715	1,437	3,049	1,684	4,085
1967-68 ..	67	252	146	635	1,463	3,215	1,676	4,102
1968-69 ..	81	580	134	672	1,580	3,393	1,795	4,645
1969-70 (b) ..	113	996	462	2,035	1,184	2,543	1,759	5,574
1970-71 ..	110	952	297	1,467	1,232	2,920	1,639	5,338
1971-72 ..	117	1,209	267	1,443	1,370	3,285	1,754	5,937

(a) Excludes intrastate shipping.

(b) Not fully comparable with previous years; see beginning of this section for explanations.

Comparability

In the previous table, breaker bars are inserted to show the break in comparability between 1968-69 and 1969-70. However, there is no break in comparability affecting the columns under 'total vessels entered'. The effect of the definitional change is simply to transfer certain movements of overseas vessels from 'interstate direct' to the category 'overseas via other State'.

The following table has been compiled to show the country of registration of vessels entering all ports in Tasmania. The number of vessels and net tonnage figures shown in this table cannot be added to arrive at a State total as some vessels may have called at two or more ports within the State during the same voyage and are therefore subject to double, triple, etc., counting.

Country of Registration of Vessels Entered Tasmanian Ports: Overseas, Interstate and Intrastate

Country of Registration	Vessels Entered Tasmanian Ports					
	1969-70		1970-71		1971-72	
	Number	Net Tons	Number	Net Tons	Number	Net Tons
Australia	1,646	3,736,876	1,596	3,574,092	1,613	4,035,310
Belgium	5	91,027	..	..	2	57,467
Bulgaria	2	9,292	..	..	..	..
Cyprus	4	14,605	3	20,438	5	21,337
Denmark	7	37,679	5	13,245	5	17,478
Finland .. ..	..	..	..	..	2	12,632
France	2	6,522	2	10,431	..	..
Germany, West ..	11	59,967	20	94,042	24	110,520
Greece	10	123,671	8	80,061	11	97,153
Honduras	2	5,326	..	..	..	..
Hong Kong	8	17,072	14	29,731	12	25,608
India	19	101,516	25	121,357	21	100,403
Indonesia	2	4,356	1	2,785	6	14,990
Ireland .. ..	..	..	1	11,146	..	..
Israel	11	47,672	2	7,011	1	4,833
Italy	3	22,244	3	29,178	3	36,214
Japan	38	532,013	43	507,146	32	459,782
Korea, Republic of	..	..	1	1,902	..	..
Liberia	27	189,750	38	367,434	37	512,154
Nauru .. ..	..	..	1	5,497	..	..
Netherlands ..	46	200,045	36	179,488	29	182,721
Netherlands Antilles	1	5,652	1	5,652	3	16,956
New Caledonia ..	2	798	..	..	..	..
New Zealand ..	31	55,155	29	56,104	27	54,311
Norway	28	196,319	38	204,441	26	166,298
Panama	11	30,302	14	82,838	18	56,917
Papua and New Guinea	1	518	..	..	2	1,112
Philippines ..	1	2,756	1	3,189	4	14,999
Poland	3	10,402	12	47,854	20	78,078
Singapore	1	584	20	65,778	15	58,428
Somalia .. ..	..	..	1	2,201	..	..
South Africa ..	..	..	1	5,652	1	5,652
Sweden	41	174,407	42	228,836	28	186,248
United Kingdom ..	192	918,347	144	646,240	182	631,886
United States of America	16	77,867	14	63,900	13	93,406
U.S.S.R.	2	12,582	4	10,304	2	4,171
Yugoslavia	2	7,174	5	23,762	5	29,232

The next table shows the number and net tonnage of vessels which entered individual Tasmanian ports during 1971-72. The names of ports in this table refer to the cities or towns in which the controlling port authorities are located:

- (i) 'Hobart' includes Port Huon, Port of Spring Bay and from 1 October 1970, Strahan;
- (ii) 'Launceston' includes Bell Bay, Beauty Point, Long Reach and Inspection Head;
- (iii) 'Devonport' includes Ulverstone;
- (iv) 'Stanley' includes Port Latta;
- (v) 'Currie' includes Naracoopa and Grassy; and
- (vi) 'Lady Barron' includes Whitemark.

A State total of number of vessels entered and their net tonnage cannot be obtained from this table by adding the port totals since vessels falling within the categories 'overseas via port in same state', 'interstate via port in same state' and 'intrastate' will be counted at each port of entry as a 'vessel entered'.

**Shipping: Overseas, Interstate and Intrastate
Vessels Entered Tasmanian Ports, 1971-72**

Port (a) of Entry and Type of Service (b)		Vessels Entered					
		In Cargo		In Ballast		Total	
		No.	Net Tons	No.	Net Tons	No.	Net Tons
Hobart—	Overseas Direct	31	190,061	25	302,580	56	492,641
	Overseas via Other State ..	97	506,999	5	26,705	102	533,704
	Overseas via Port in Same State	15	128,422	..	..	15	128,422
	Interstate Direct	310	646,091	68	87,299	378	733,390
	Interstate via Port in Same State	27	87,665	..	..	27	87,665
	Intrastate	40	61,279	8	15,477	48	76,756
	Total Hobart	520	1,620,517	106	432,061	626	2,052,578
Burnie—	Overseas Direct	4	13,215	6	36,597	10	49,812
	Overseas via Other State ..	64	352,192	..	..	64	352,192
	Overseas via Port in Same State	26	114,483	..	..	26	114,483
	Interstate Direct	201	676,089	58	101,185	259	777,274
	Interstate via Port in Same State	35	154,814	..	..	35	154,814
	Intrastate	13	67,483	18	26,156	31	93,639
	Total Burnie	343	1,378,276	82	163,938	425	1,542,214
Devonport—	Overseas Direct	2	5,261	2	8,110	4	13,371
	Overseas via Other State ..	18	94,883	2	10,247	20	105,130
	Overseas via Port in Same State	11	84,258	1	6,568	12	90,826
	Interstate Direct	329	686,479	71	88,776	400	775,255
	Interstate via Port in Same State	10	41,520	..	..	10	41,520
	Intrastate	44	15,492	3	6,374	47	21,866
	Total Devonport	414	927,893	79	120,075	493	1,047,968
Launceston—	Overseas Direct	11	54,165	4	16,461	15	70,626
	Overseas via Other State ..	73	280,002	2	17,712	75	297,714
	Overseas via Port in Same State	10	59,127	..	..	10	59,127
	Interstate Direct	302	948,379	3	8,848	305	957,227
	Interstate via Port in Same State	36	161,002	..	..	36	161,002
	Intrastate	22	65,030	5	2,938	27	67,968
	Total Launceston	454	1,567,705	14	45,959	468	1,613,664

**Shipping: Overseas, Interstate and Intrastate
Vessels Entered Tasmanian Ports, 1971-72—continued**

Port (a) of Entry and Type of Service (b)		Vessels Entered					
		In Cargo		In Ballast		Total	
		No.	Net Tons	No.	Net Tons	No.	Net Tons
Stanley—	Overseas Direct	3	22,134	29	560,406	32	582,540
	Overseas via Other State ..	2	11,359	4	142,797	6	154,156
	Overseas via Port in Same State	1	6,645	..	..	1	6,645
	Interstate Direct	3	21,693	..	..	3	21,693
	Interstate via Port in Same State	1	7,231	..	..	1	7,231
	Intrastate	1	997	..	..	1	997
	Total Stanley	11	70,059	33	703,203	44	773,262
Currie—	Interstate Direct	1	5,535	..	..	1	5,535
	Interstate via Port in Same State	1	5,535	..	..	1	5,535
	Intrastate	13	3,016	27	11,942	40	14,958
	Total Currie	15	14,086	27	11,942	42	26,028
Lady Barron—	Interstate Direct	20	12,140	4	2,428	24	14,568
	Intrastate	27	16,014	..	..	27	16,014
	Total Lady Barron ..	47	28,154	4	2,428	51	30,582

(a) See introduction to this table.

(b) Type of Service ('Overseas Direct', etc.) is defined under *Movements of Vessels* at the beginning of this section.

The following table shows, in summary form, the number and net tonnage of vessels which entered Tasmanian ports during the last three years:

**Shipping: Overseas, Interstate and Intrastate
Vessels Entered Tasmanian Ports**

Port (a) of Entry	1969-70		1970-71		1971-72	
	Number	Net Tons	Number	Net Tons	Number	Net Tons
Hobart	644	1,766,416	(b) 601	(b) 1,659,401	626	2,052,578
Burnie	452	1,562,215	388	1,390,412	425	1,542,214
Currie	22	7,508	66	25,918	42	26,028
Devonport	450	987,575	467	958,183	493	1,047,968
Lady Barron	41	20,459	51	30,957	51	30,582
Launceston	461	1,440,322	488	1,590,747	468	1,613,664
Stanley	90	896,469	64	846,117	44	773,262
Strahan	15	11,532	(c) ..	(c) ..	..	..

(a) See explanation in introduction to previous table.

(b) Includes Strahan from 1 October 1970.

(c) July to September 1970 only; on 1 October 1970 the port of Strahan came under the control of the Marine Board of Hobart.

Cargo Discharged and Shipped

Cargo handled at ports is recorded in terms of units of weight or units of measurement depending on the basis on which freight is charged. A ton measurement is a unit of 40 cubic feet. As totals derived from conversion to a common weight or alternatively to a common volume would not be accurate, entries in each of the two units are recorded and published separately.

In the next table, details are given of the cargo handled at each port in Tasmania. The classifications 'Overseas' and 'Interstate' relate either to the origin or destination of the cargo.

**Cargo Discharged and Shipped
Individual Tasmanian Ports, 1971-72**

Port	Overseas		Interstate		Total	
	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement
DISCHARGED						
Hobart	142,393	11,918	676,262	220,094	818,655	232,012
Burnie	77,386	855	239,490	203,979	316,876	204,834
Currie .. ..	..	..	6,841	..	6,841	..
Devonport	36,059	1,942	122,883	504,603	158,942	506,545
Lady Barron .. ..	..	..	1	1,111	1	1,111
Launceston	83,171	1,046	721,674	262,483	804,845	263,529
Stanley	30,262	..	29,426	..	59,688	..
Total	369,271	15,761	1,796,577	1,192,270	2,165,848	1,208,031
SHIPPED						
Hobart	551,634	118,214	463,385	159,941	1,015,019	278,155
Burnie	141,441	13,987	361,031	143,406	502,472	157,393
Currie .. ..	..	..	..	282	..	282
Devonport	21,448	5,616	209,347	517,369	230,795	522,985
Lady Barron .. ..	..	..	..	3,850	..	3,850
Launceston	46,002	24,725	136,159	175,302	182,161	200,027
Stanley	2,113,035	..	..	1,177	2,113,035	1,177
Total	2,873,560	162,542	1,169,922	1,001,327	4,043,482	1,163,869

The following table gives a summary of overseas and interstate cargo discharged and shipped at Tasmanian ports:

Cargo Discharged and Shipped, All Tasmanian Ports

Year	Overseas		Interstate		Total	
	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement
DISCHARGED						
1962-63	300,978	45,926	1,051,247	438,537	1,352,225	484,463
1963-64	326,043	43,100	1,033,230	448,997	1,359,273	492,097
1964-65	388,777	72,437	1,015,197	597,335	1,403,974	669,772
1965-66	335,700	34,944	1,097,149	708,874	1,432,849	743,818
1966-67 (a)	372,748	40,878	1,483,292	837,703	1,856,040	878,581
1967-68	260,730	41,262	1,582,038	913,020	1,842,768	954,282
1968-69	242,928	46,991	1,724,878	961,377	1,967,806	1,008,368
1969-70	322,074	45,116	1,655,955	1,095,240	1,978,029	1,140,356
1970-71	407,761	26,189	1,675,265	1,084,968	2,083,026	1,111,157
1971-72	369,271	15,761	1,796,577	1,192,270	2,165,848	1,208,031

Cargo Discharged and Shipped, All Tasmanian Ports—continued

Year	Overseas		Interstate		Total	
	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement
SHIPPED						
1962-63	203,877	141,149	583,379	468,374	787,256	609,523
1963-64	154,499	253,130	629,847	384,150	784,346	637,280
1964-65	195,393	198,461	661,928	517,931	857,321	716,392
1965-66	202,820	216,277	636,957	530,090	839,777	746,367
1966-67 (a)	220,169	184,336	619,556	669,670	839,725	854,006
1967-68	272,998	249,324	685,321	755,125	958,319	1,004,449
1968-69	1,592,918	233,122	804,812	806,913	2,397,730	1,040,035
1969-70	2,544,955	92,028	920,321	801,255	3,465,276	893,283
1970-71	2,537,198	74,163	975,974	869,986	3,513,172	944,149
1971-72	2,873,560	162,542	1,169,922	1,001,327	4,043,482	1,163,869

(a) From 1966-67 not comparable with previous years; see beginning of this section for explanation.

Passenger Movements

Statistics of overseas arrivals and departures are compiled from information supplied by the Department of Immigration under the *Migration Act* 1958-1966. The shipping companies supply details for compilation of statistics relating to inter and intrastate passenger movements.

A number of definitions, listed as follows, apply to the various categories of passenger movements by ship:

- (i) overseas passengers are persons travelling to or from overseas destinations who embark or disembark in Tasmania;
- (ii) transit passengers are persons from overseas, passing through Tasmanian ports, who continue on board the same ship to an overseas destination;
- (iii) interstate passengers are persons travelling by sea from other Australian States or round-trip passengers, i.e. passengers travelling interstate and returning either to the same port or to another port in Tasmania; and
- (iv) cruise passengers are persons on overseas journeys which have been classified as cruises by Australian authorities to simplify legal requirements. These journeys begin and end in Australia, do not exceed 30 days and are confined to the South-West Pacific.

The following table shows, for a five-year period, passenger movements at the major Tasmanian ports:

Passenger Movements, Tasmanian Ports

Port	1968	1969	1970	1971	1972
INTERSTATE, DISEMBARKING					
Hobart	5,849	5,094	4,622	4,635	3,687
Launceston	7,568	9,214	11,638	11,719	7,614
Burnie	1,444	4,458	8,458	7,751	2,998
Devonport	44,506	42,116	43,612	39,625	48,368
Total	59,367	60,882	68,330	63,730	62,667

Transport and Communication

Passenger Movements, Tasmanian Ports—continued

Port	1968	1969	1970	1971	1972
INTERSTATE, EMBARKING					
Hobart	5,345	5,301	4,676	4,346	3,732
Launceston	2,053	4,263	7,430	7,582	3,315
Burnie	6,950	8,170	11,598	11,573	7,382
Devonport	44,719	41,263	44,465	39,898	48,020
Total	59,067	58,997	68,169	63,399	62,449
INTERSTATE, IN TRANSIT					
Hobart	175	365	338	994	169
Launceston	1,123	1,120	864	720	491
Burnie	1,709	1,813	1,432	1,538	935
Devonport	33	38	27	69	1
Total	3,040	3,336	2,661	3,321	1,596
OVERSEAS, DISEMBARKING					
Hobart	403	64	129	224	117
Launceston	1	6	6	2	..
Burnie	10	..	3	4	1
Devonport .. ..	..	2	6	..	..
Total	414	72	144	230	118
OVERSEAS, EMBARKING					
Hobart	288	256	344	341	261
Launceston	10	2	3	22	8
Burnie	2	4	..	1	11
Devonport	1	2	..	..	..
Total	301	264	347	364	280
OVERSEAS, IN TRANSIT (a)					
Hobart	2,276	1,795	2,951	962	2,287
Launceston	78	47	38	55	95
Burnie	36	21	23	26	73
Devonport	58	29	88	12	6
Total	2,448	1,892	3,100	1,055	2,461
CRUISE, DISEMBARKING					
Hobart	76	93	..	23	..
Launceston .. ..	..	..	..	..	..
Burnie .. ..	..	..	..	..	..
Devonport .. ..	..	..	..	..	..
Total	76	93	..	23	..

Passenger Movements, Tasmanian Ports—*continued*

Port	1968	1969	1970	1971	1972
CRUISE, EMBARKING					
Hobart	123	101	..	72	80
Launceston .. ..	..	..	..	..	..
Burnie .. ..	..	..	..	..	..
Devonport .. ..	..	..	..	..	..
Total	123	101	..	72	80
CRUISE, IN TRANSIT					
Hobart	1,184	1,679	..	1,007	996
Launceston .. ..	..	..	..	..	..
Burnie .. ..	..	..	..	..	..
Devonport .. ..	..	..	..	..	..
Total	1,184	1,679	..	1,007	996

(a) Overseas passengers beginning or ending their journey in Australia.

TASMANIA'S INTERSTATE TRANSPORT PROBLEM

SOURCE: *Bureau of Transport Economics' Study; An Assessment of Tasmania's Interstate Transport Problems, March 1973.*

Introduction

On 3 September 1970 the Senate resolved that the following matter should be referred to the Senate Standing Committee on Primary and Secondary Industry and Trade:

'The operation of the Australian National Line's shipping services to and from Tasmania with regard to:

- the factors considered in establishing freight rates;
- the appropriateness of the current level of freight rates; and
- any amendments necessary to governing legislation to enable the operation to be carried out at the lowest possible freight rate.'

The Committee undertook an extensive investigation into the problem and presented its report to the Senate in June 1971. In the report the Committee recommended that '... the Bureau of Transport Economics be asked to attempt a quantitative assessment of Tasmania's transport disabilities relative to the other States.' The Senate Committee also expressed the opinion that Tasmania did in fact suffer an interstate freight rate disadvantage relative to other States.

The Minister for Shipping and Transport referred the subject to the Bureau of Transport Economics in October 1971. The study, undertaken by the Bureau, examined the question of sea freight rates relative to other modes of transport and associated freight matters (e.g. freight forwarding practices, the operation of Tasmanian ports, movements in costs and profits of shipping lines, etc.) in detail and presented its findings in a report of March 1973.

The Bureau of Transport Economics concluded that in the freight of bulk goods (e.g. mineral concentrates, ores and petroleum products) Tasmania was not at a disadvantage compared to any other State. Both rates and shipping services for the shipment of such goods to and from Tasmania were similar to those available for shipments between mainland ports. The question of a freight disadvantage centred on the transport of non-bulk goods (e.g. manufactured goods) to and from Tasmania.

Assessment of the Transport Disability

Investigations revealed that it was difficult to make comparisons between mainland interstate freight rates and rates for the same goods shipped to and from Tasmania. Factors considered when attempting to assess Tasmania's relative freight disadvantage in respect to non-bulk goods included the following:

Volume of Goods: The volume of goods moving over a particular route influences the freight rate charged. In general terms the greater the volume of goods the lower the unit freight rate. This arises from the fact that fixed costs associated with the transport system are spread over a broader base giving a lower unit cost, and also, with a large volume, greater utilisation of facilities is achieved. The enquiry revealed that the total volume of non-bulk freight between the whole of Tasmania and the mainland centres was only 50 per cent of the freight volume between Melbourne and Sydney. Furthermore, the Tasmanian non-bulk freight was distributed in roughly even proportions between four Tasmanian ports (Hobart, Launceston, Devonport and Burnie). The volume of freight moving to and from Hobart was only about nine per cent of the volume moving between Melbourne and Sydney and 24 per cent of Adelaide's total freight. On this basis higher rates could be expected on the Tasmanian route than existed on mainland routes.

Rail Subsidies: It is frequently stated that the reason for the relatively low mainland interstate rail freight rates is that governments subsidise their rail operations (i.e. losses made on the systems are covered by grants from the government) while on interstate shipping to and from Tasmania the lines are attempting to run at a profit. However, several points can be made against this argument: (i) The losses are for the whole of the rail system (freight and passenger services) and the latter services are the principal cause of losses on mainland rail systems. (ii) The fact that a rail system has differing ton-mile rates for different routes within the system does not necessarily mean that routes with the lower rates are subsidised since the rates may reflect lower unit operational costs for these routes. The lower unit costs may reflect volume of traffic, type of service provided, special backloading rates, etc.

Terminal Costs: In any freight movement there is a fixed terminal cost element—the longer the journey the less the ton-mile charge for this element and the lower the proportion of the total freight costs accounted for by terminal costs. This factor is frequently overlooked when comparing the costs of different transport methods. The comparison is further complicated when the two transport methods being compared have differing proportions of terminal and line-haul costs over similar distances for the same goods. However, the generally accepted ranking of transport methods according to magnitude of terminal costs is sea, rail and road. For all transport methods the longer the journey the less important are terminal costs and as the Tasmanian freight routes are relatively short it follows that terminal costs will be significant in the total freight cost.

Ton-Mile Rates: These are frequently used as a means for comparing the relative costs of different modes of transport. However, for many reasons (e.g. the question of the relative importance of terminal costs, the volume of traffic over a particular route, the type of service provided, aspects peculiar to that route (e.g. special backloading rates) ton-mile rates are not always an appropriate measure for comparison of freight costs.

Having taken into account these aspects the Bureau of Transport Economics concluded that Tasmania, because it had to use sea freight for interstate transport of non-bulk goods, did suffer a transport disability. The Bureau assessed that the disability, arising from the necessity to use sea freight, on the transport of goods between Tasmania and Melbourne was from one to five dollars per ton. This disadvantage increases with lower density cargoes and may be as much as \$25 per ton on low density cargoes.

Factors Contributing to the Freight Rate Problem

The Bureau of Transport Economics, as a result of its investigation, concluded that there were several factors operating against a reduction of freight rates for non-bulk goods on the Tasmanian route. The Bureau studied the operation of Tasmanian ports, suitability of ships currently engaged on the run and freight forwarding procedures.

Tasmanian Ports

As a result of an examination of Tasmanian ports the Bureau concluded that the ports had over invested in port facilities and created surplus capacity. In the study it was stated:

'In 1971-72, the three northern ports received a total of 492 visits from Ro-Ro (roll-on roll-off) vessels. This number of visits could have been handled by two Ro-Ro berths at the average turn around time of eight to ten hours for these vessels. In fact, there are five Ro-Ro berths at these three ports and a sixth is nearing completion.'

Development of excess capacity has created a situation where there is under-utilisation of facilities and where it is necessary to charge high wharfage rates to recover the capital outlay costs. (The low and relatively static volume of goods passing through the ports means that wharfage rates per ton have to be high to yield the required revenue.) Tasmanian ports' wharfage rates per ton compared with rates on similar cargoes at mainland ports are considerably higher.

Furthermore, the Bureau of Transport Economics concluded that the inclusion of port charges in the standard A.N.L. freight rate to all northern Tasmanian ports had resulted in uniform port charges set at the level of the highest cost port. Thus there is no incentive for a port to reduce port charges since the A.N.L. rate to that port would not be reduced. Competition between northern ports is therefore in terms of quality of service which has further promoted the development of excess capacity and duplicated facilities.

The Bureau of Transport Economics recommended that a central authority be set up '... to plan and control the development of Tasmanian ports in the best interests of Tasmania.' The authority would control capital works programmes and their financing while the present port authorities would retain responsibility for efficient management of ports. The central port authority would also be responsible for establishing port charges and overseeing negotiations between shippers, port authorities and shipping companies. It was also felt that if the practice of funding capital works from revenue ceased there could be savings of 15 to 25 cents per ton in the cost of wharfage.

Freight Forwarding in Tasmania

A similar problem of too many operators and under-utilisation of facilities was also found to exist in this area of freight movement. However, competition for northbound cargoes, not covered by existing contracts, is keen and causes door-to-door rates for such cargoes to be kept low. Such competition for backloading is also common in mainland freight forwarding.

Shipping

In the conclusions to the study it was stated: 'The non-bulk freighting service to Tasmania is not operating in the most efficient manner. . . . ships operated on the route are not the most efficient.' However, use of more efficient vessels would not necessarily lead to a reduction in the sea freight rates as the shipping companies are operating at either a loss or near loss on the Tasmanian route. Introduction of more suitable vessels would more likely lead to a period of sea freight rate stability in face of continued cost increases.

The Bureau of Transport Economics suggested several alternative shipping strategies which would increase utilisation of the vessels on the Melbourne-northern Tasmania run and hence reduce the cost per ton of cargo. Shipping strategies suggested by the Bureau to achieve greater utilisation of vessels were:

- 'A A single 7,500 cargo ton capacity vessel operating between Melbourne and one northern Tasmanian port.
- B A single 10,000 cargo ton capacity vessel operating between Melbourne and one northern Tasmanian port.
- C-1 Two vessels, one of 3,500 cargo tons and another of 2,500 tons capacity, providing each northern port with two visits per week from Melbourne.

- C-2 As in C-1 except that Bell Bay receives three visits per week, Burnie two and Devonport one.
- C-3 As in C-1 except that Devonport receives three visits per week, Bell Bay and Burnie one.
- D Three vessels, one 3,500 cargo ton and two 2,500 cargo ton capacity vessels providing each northern port with three visits a week from Melbourne.

After analysis of these alternative strategies the Bureau of Transport Economics went on to conclude:

'Several of the suggested shipping strategies may result in reductions in costs in the North Tasmania-Melbourne trade. Such reductions in cost, however, would only be gained at the expense of reduced frequencies of service. It is apparent from the calculations that there are no simple solutions that would lead to immediate reductions in shipping costs. Because any change in shipping service must take some time to implement, the estimated cost-saving resulting from some strategies would be more likely to offset future cost increases, than result in immediate cost reductions.'

Costs and Profitability

During the early years after the introduction of roll-on roll-off vessels, profit from the Tasmanian routes was in excess of that required to pay dividends attributable to the Tasmanian trade. However, for the five years ended 1971-72 the profitability of the Tasmanian trade declined sharply to either a loss or near loss situation. This was due to rapid cost increases and partially to a slower growth in trade. Major increases have occurred in crew, terminal and repair and maintenance costs. It was estimated that total shipping costs to and from Tasmania have increased by 55 to 65 per cent during the five years ended 1971-72 while most freight rates have increased by only 25 per cent and passenger rates by 15 per cent during the same period. Thus in the absence of any marked increase in utilisation or efficiency, profits from the Tasmanian run have been considerably eroded.

Passenger Services

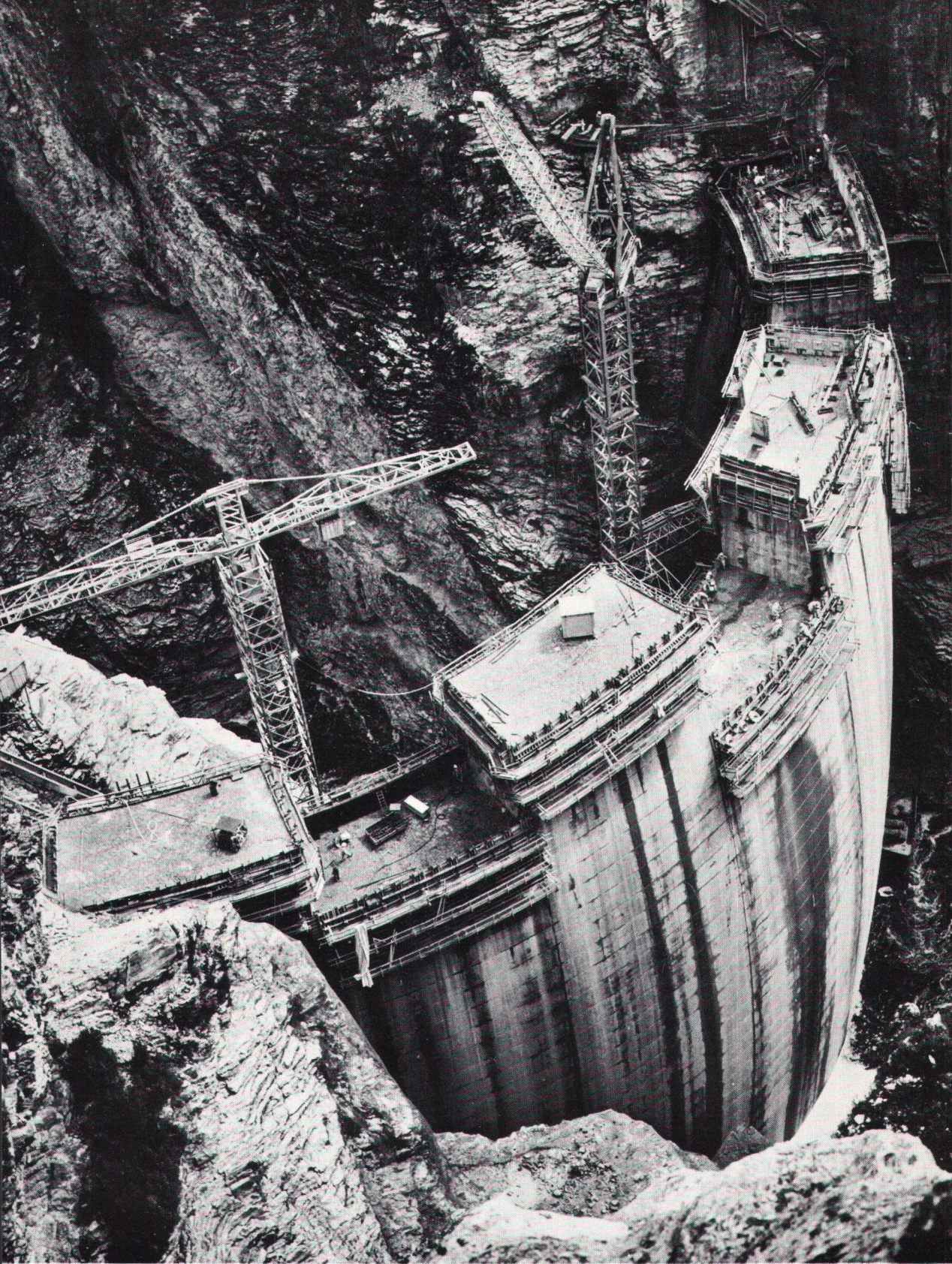
An assessment of costs associated with passenger services indicated that a substantial loss was incurred from the provision of this service and that revenue from freight rates had to subsidise the passenger service. The opinion of the Bureau of Transport Economics was that this practice of cross-subsidising passenger rates from freight rates is not in the best interest of cargo transport and should not be followed.

TRANSPORT COMMISSION

Origin of Commission

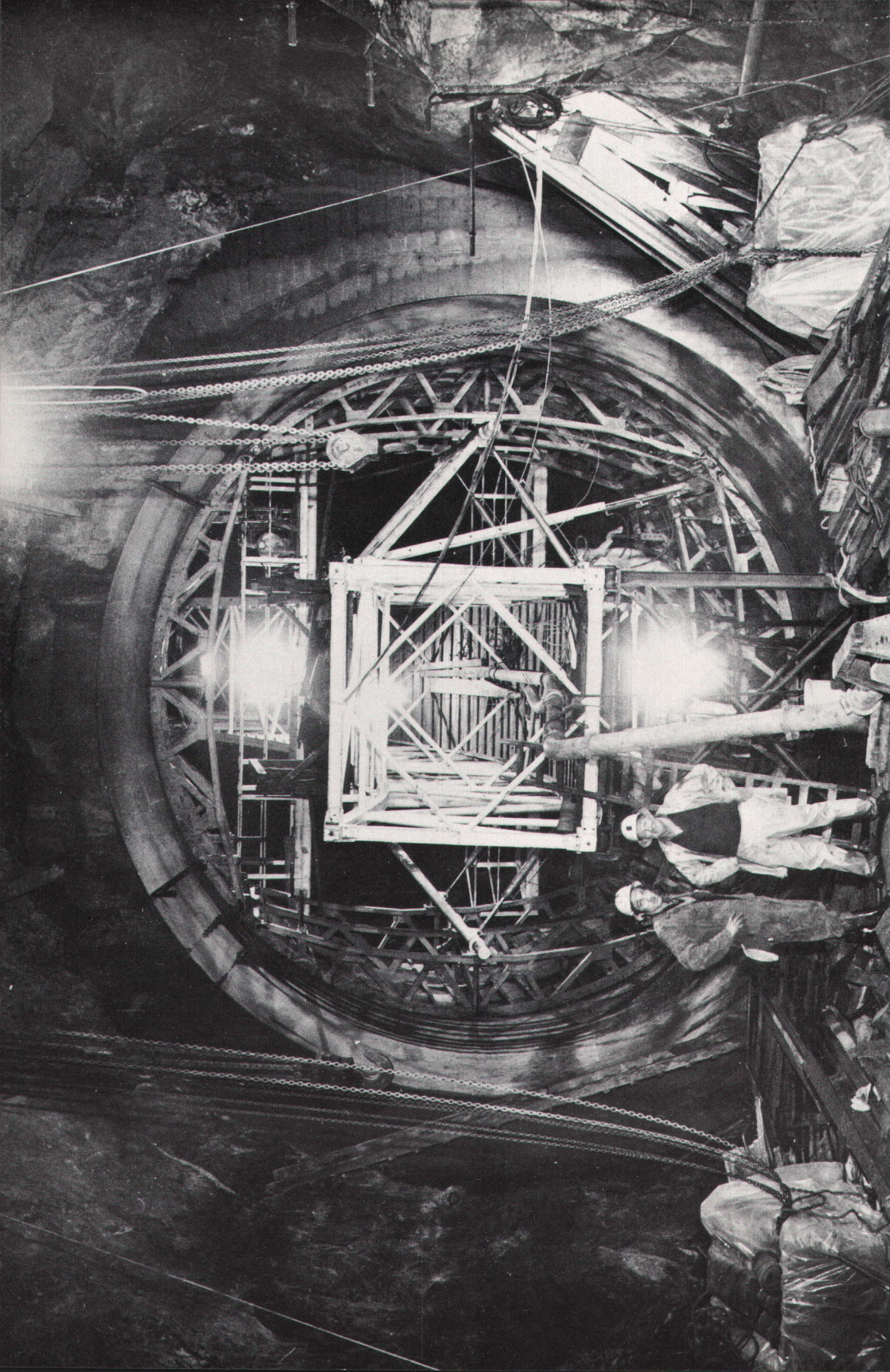
The State railways operated at a considerable loss during the period following World War I and this difficulty was accentuated by the increasing use of commercial road transport. The 1938 report of the Commonwealth Grants Commission contained the following comment: 'A large State may conceivably stand the cost of duplicated transport, but it is obvious that Tasmania cannot. We believe that the Tasmanian Government appreciates this position and that it can only be met by initiative and decision.' At the time of this report, railways were controlled by a Minister; motor vehicle registration and licensing of drivers were Police Department functions; and public vehicle licensing was administered by a Transport Committee appointed by the Government.

Following an enquiry, Parliament passed the *Transport Act 1938* establishing a new authority headed by a Commissioner and two Associate Commissioners. In December 1972 the Act was amended and the number of Associate Commissioners increased to three. The Associate Commissioners' areas of responsibility are: (i) management and operation of railways; (ii) public transport operations and administration and control of road traffic; and (iii) management and



Gordon Dam, Gordon River Power Development

[Hydro-Electric Commission]



Construction of intake tunnel, Gordon Power Station

[Hydro-Electric Commission]

operation of shipping services. This Act and subsequent amending legislation had the effect of creating an administrative authority unique in Australia because the management and control of all public transport, with minor exceptions, became the responsibility of one central authority. The government omnibus services in Hobart, Launceston and Burnie and the privately-owned Emu Bay Railway are the exceptions.

Functions of the Commission

The functions of the Commission are as follows:

- (i) the control and management of the Government railways;
- (ii) the regulation and licensing of commercial road transport (i.e. of 'public vehicles');
- (iii) the registration and taxation of motor vehicles and the licensing of drivers;
- (iv) the control and operation of the Bruny Island ferry service and the Flinders Island shipping service;
- (v) the administration of regulations under the *Traffic Act* concerning road traffic control;
- (vi) the administration and control of State aerodromes;
- (vii) traffic engineering associated with the control of traffic; and
- (viii) control and operation of an engineering plant (known as the 'precision tool annexe').

In brief, the Transport Commission emerges as a *business undertaking*, an *administrative body* and a *taxing authority*.

Control of Commission

The Commission, by Section 6 (2) of the Act, is absolutely free from political control except that the Minister for Transport may, under Section 33, appeal to the Governor if dissatisfied with decisions of the Commission. Section 34 allows the Governor, as a form of assistance to industry in certain cases, to direct the Commission to reduce freight charges but, to the extent that such direction causes a revenue loss, the Treasurer is obliged to reimburse the Commission; the formula for reimbursement requires either acceptance of the Commission's original charges as the economic cost of the service or substitution of the Auditor-General's calculation of the economic cost, should the level of the Commission's original charges be considered uneconomic by the Auditor-General.

Commission's Financial Operations

The revenue of the Commission comes from three main sources:

- (i) own business undertakings—railways, shipping services and an engineering plant ('precision tool annexe');
- (ii) public vehicle licensing fees; and
- (iii) grants from Consolidated Revenue.

The financial transactions of the Commission are summarised in the tables that follow. For simplicity of presentation, the transactions are arranged in two sets of accounts, firstly Trading and Profit and Loss and secondly Taxation, Licensing, etc. It should be noted that the net loss in the trading and profit and loss account for any year becomes a charge on Consolidated Revenue in the following year; also that the proceeds from motor taxation, registration, licensing, etc. are passed to Consolidated Revenue, the Commission being reimbursed the costs of collecting such revenues and the costs and expenses incurred in connection with the control of, and the provision of facilities for motor traffic. A distinction is drawn, however, between public vehicle fees and public vehicle licensing; the latter charges are taken into the profit and loss account as an offset against net trading loss.

Of the total taxes and charges levied on motorists and paid into the Consolidated Revenue Fund, only the motor tax and public vehicle fees components (\$5,659,000 in 1971-72) are transferred by the Treasurer to the State Highways Trust Fund. A part of motor vehicle registration fees, licences, etc. is retained in the Consolidated Revenue Fund.

Transport Commission: Trading and Profit and Loss Account
(\\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72
REVENUE				
Railways	7,214	7,245	6,125	6,326
Road Transport Services (a) ..	248	..	..	..
Marine Services	258	385	r285	314
Tool Annexe	296	328	370	340
Land Tax (b)	2,352	..	..	..
Public Vehicle Licensing (by Transfer)	77	80	80	80
Other Revenue	92	101	97	121
Net Loss (c)	1,185	3,502	5,830	6,340
Total	11,722	11,642	r12,788	13,522
EXPENDITURE (d)				
Railways	9,300	9,326	10,149	10,587
Road Transport Services (a) ..	252	..	..	..
Marine Services	318	374	r438	464
Tool Annexe	273	307	341	345
General, including Administration ..	348	385	390	463
Interest	1,231	1,250	1,470	1,663
Total	11,722	11,642	r12,788	13,522

(a) Operations ceased 7 December 1968.

(b) In 1969-70 the Treasurer ceased the procedure of transferring Land Tax from the Consolidated Revenue Fund to the Transport Commission.

(c) To be charged against Consolidated Revenue in following year.

(d) Provisions for depreciation included in each item (excluding interest).

The remaining transactions can be summarised as follows (road safety accounts are excluded):

Transport Commission: Motor Taxation Collection, Licensing, etc.
(\\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72
REVENUE				
Motor Tax	4,247	4,456	4,683	5,323
Public Vehicle Licensing, Fees, etc.	410	443	439	448
Registrations, Licences, etc. ..	1,150	1,262	1,593	1,631
Refunds of Stamp Duty	-1	-1	-1	-1
Stamp Duty on Vehicle Registrations	343	365	396	441
Transfers from Consolidated Revenue—				
Road Transport Administration ..	464	599	726	685
Traffic Engineering Section ..	268	295	356	415
Minister for Transport .. .. .	..	15	22	22
Total	6,882	7,435	8,214	8,964
EXPENDITURE				
Profit and Loss Account (Transfer)				
(a)	77	80	80	80
Paid to Consolidated Revenue ..	6,107	6,480	7,066	7,789
Administration, Traffic Control, etc.	702	903	1,073	1,083
Total	6,886	7,463	8,218	8,952

(a) Receipts from public vehicle licensing paid into profit and loss account.

Annual Loss

In 1968-69 and earlier years the Commission received two grants from Consolidated Revenue: (i) reimbursement of the previous year's loss; and (ii) a grant equal to State Land Tax collections. From 1969-70, the loss incurred by the Commission for the previous year has been reimbursed by a single grant from Consolidated Revenue (\$6,340,348, the loss for 1971-72 reimbursed during 1972-73). The accounts reveal that the Commission's net loss occurs principally in respect of railways but the case for continued subsidisation is argued on a number of grounds: (i) abandonment of all railway operations would still leave the State with liability for annual debt charges exceeding \$1.5m; (ii) heavy bulk freights now carried by rail would rapidly break up present road surfaces if they were transferred to road haulage, and considerable sums would have to be spent on increased road maintenance or road improvements; and (iii) because rail transport for certain types of freight is still considered more economical than road haulage closing the railways might add appreciably to the costs of many primary and secondary producers.

Transport Commission Shipping Services

The Transport Commission exercises control over: (i) the Bruny Island ferry; and (ii) shipping services between Flinders Island, Hobart, Launceston and Victorian ports. King Island was also included in the shipping services provided by the Commission during 1972-73.

The Commission's shipping services are operated by the *Joseph Banks* and the *Straitsman*. The *Joseph Banks* commenced on the inter-island run and between Tasmanian and Victorian ports in January 1969. The ship can handle livestock and general bulk cargoes. Livestock carrying capacity is either approximately 5,000 sheep or 800 head of cattle. During 1971-72 the *Joseph Banks* made 157 port calls and carried 12,000 tons of general cargo, 55,000 sheep and lambs and 7,000 cattle. The *Straitsman*, built for R. H. Houfe & Co. Pty Ltd in 1971 for the King Island trade, was purchased by the State Government in late 1973 for \$1,070,000. The *Straitsman* operates a triangular service—Stanley-Grassy (King Island)-Melbourne and can handle livestock and general cargoes.

RAILWAYS

Historical

Tasmania has a three feet six inch gauge government railway system based on a route mileage of 517 miles. A private railway of 83 miles is operated by the Emu Bay Railway Company Ltd between Burnie and Melba Siding (12 miles south of Rosebery).

The first railway in Tasmania was opened for traffic in 1871 (construction having begun three years earlier on a 45-mile line from Deloraine to Launceston). It is significant that only one-ninth of the original capital was subscribed by the shareholders of the Launceston and Western Railway Company, the remainder, \$800,000, being raised by the Government. The line was laid in broad gauge (five feet three inch) without regard for the fact that narrower gauge might be needed in the more mountainous parts of the island. Within a year of opening the company was in financial difficulties and the line was taken over by the Government. At the date of starting construction, the island's population had not passed 100,000.

The second line was an even more ambitious undertaking—123 miles of three feet six inch track from Hobart to Western Junction, linking there with the five feet three inch line—and involved considerable problems of contour survey because of the high plateau lying across the route. The Tasmanian Main Line Railway Company opened the line for traffic in 1876. The problem of differing gauges on the two systems was overcome by laying a third rail on the ten miles of the five feet three inch track from Western Junction to Launceston, the Main Line Company having running rights over this stretch. In 1890 the Government purchased the line for \$2,213,000.

The next line to open for traffic (1884) was owned by the Emu Bay and Mount Bischoff Railway Company which converted an existing horse-tramway to three feet six inch gauge; the 48-mile line connected Waratah to the port of Burnie, the primary objective being to ship out freight from the rich Mount Bischoff tin mines.

By 1890 the essential framework of the present railway system on three feet six inch gauge had been laid, and future growth involved track extensions mainly in directions already determined in the first twenty years of rapid construction. The following table shows the pattern of development in 1890 and compares it with that of the present system. Under 'route' is shown firstly the terminals of individual tracks in 1890 and secondly the present extent of the same tracks. Except for the Cold Water Creek-Long Reach line, construction dates only before 1890 are quoted since later extension of track was carried out in several stages.

Government and Private Railways
Route-mileage of Lines Open: 1890 and 1973

Route	Area Served	Year Open For Traffic	Mileage of Lines Open	
			1 Jan. 1890	30 June 1973
Launceston to Devonport ..	North-West	1885	(a)82	..
Launceston to Smithton ..	" "	..	..	(a)178
Hobart to Western Junction ..	North-South Link	1876	(b)122	(a)123
Burnie to Waratah ..	West Coast	1884	(b)48	..
Burnie to Melba Siding ..	" "	..	..	(b)83
Conara to St Marys ..	Fingal Valley	1886	(a)47	(a)47
Bridgewater to Glenora ..	Derwent Valley	1888	(a)24	..
Bridgewater to Florentine ..	" "	..	..	(a)44
Launceston to Scottsdale ..	North-East	1889	(a)47	..
Launceston to Herrick ..	" "	..	..	(a)85
Cold Water Creek to Long Reach ..	Tamar Valley	1973	..	(a)17
Other Branches ..	..	..	(a) 4	(a)23
Total Route-miles Open ..	..	..	374	600
Government ..	..	..	203	517
Private ..	..	..	171	83

(a) Government.

(b) Private.

The table does not show two defunct lines which used to operate on the west coast; these were: the government service, Zeehan to Strahan (29 miles), opened in 1892; and the private service, Queenstown to Strahan (21 miles), opened in 1899. The Emu Bay railway had reached Zeehan by 1900 when it became possible to make a Burnie-Queenstown trip by using all three services and moving Burnie-Zeehan-Strahan-Queenstown.

In 1965, the Emu Bay Railway Company Ltd closed the line from Rosebery to Zeehan; 12 miles of this line, from Rosebery to Melba Siding, were re-opened in January 1970 to enable the transportation of iron pyrites to the North-West Acid Pty Ltd plant at Burnie.

Work commenced in 1971 on the construction of a new rail link from Cold Water Creek to the Port of Bell Bay, a distance of some 23 miles. Log trains began using the first section of this line (Cold Water Creek to Long Reach) in February 1973. The final section to Bell Bay became operational in the latter part of 1973.

Growth and Decline

The main task of developing and maintaining railways became the responsibility of the Tasmanian Government after it purchased the Hobart-Western Junction line in October 1890.

The next table shows the mileage of Government-owned railways from 1895 to the present:

Government Railways: Route-mileage of Lines Open at 30 June

Year	Route-miles Open	Year	Route-miles Open	Year	Route-miles Open
1895 (a)	420	1930	679	1955	605
1905	463	1935	645	1960	538
1915	533	1940	644	1965	500
1920	629	1945	642	1970	500
1925	673	1950	613	1973	517

(a) At 31 December 1895.

The peak of development was reached in 1930 when 679 miles were open for traffic; since then, many branch lines have been closed down, the competition of road transport making their operation uneconomic. Route-mileage has actually declined to what it was 60 years ago at the outbreak of World War I. Examples of lines now closed down are: Brighton to Apsley, 27 miles; Bellerive to Sorell, 15 miles; and Zeehan to Strahan, 29 miles.

Recent Developments

The long-term problem of the State railway system has been to reduce its annual operational loss. Cost increases, particularly wages and salaries, without comparable increases in freight rates and fares have accentuated this problem. (During 1971-72 the wage and salary bill for railway employees exceeded railway revenue by 29 per cent.)

The Commission is pursuing the objective of securing rationalisation of operating methods. This includes not only reviews of the methods of obtaining and transporting various types of freight, but also the closing of sidings and country stations which are no longer economic to keep open and maintain, and the disposal of railway buildings no longer required for traffic purposes. Efforts are being made to increase railway revenue, reduce costs and provide improved services.

Bell Bay Rail Link

Although various proposals to construct the link had been made, some dating as far back as 1912, it was not until two woodchip exporting companies announced proposals to construct shipping berths at Long Reach, near Bell Bay, that the link was considered economically feasible. Work started on the project in late 1971. Total cost of the link and associated work was estimated at \$22.3m. This project involved: (i) the construction of a new section of railway on the eastern bank of the Tamar River from Cold Water Creek to Bell Bay; (ii) up-grading of existing track between Launceston and Cold Water Creek, and purchase of eight heavy-duty main-line locomotives and 200 bogie log wagons; (iii) construction of new running lines and loops in Launceston; (iv) a bridge across the North Esk River; and (v) a spur line to serve the two woodchip plants at Long Reach. The new locomotives are capable of hauling a trailing load of about 1,200 tons on a gradient of 1 in 70. The new bogie wagons have a maximum gross tonnage of 58 tons.

Finance for the project was provided by the State and Commonwealth Governments and the two woodchip companies. The State paid the major portion of the cost; maximum Commonwealth assistance was \$5m, of which 30 per cent was a grant and the remainder an interest bearing loan repayable over 30 years.

The Bell Bay link became operational in late 1973.

Operating Statistics

The next table shows the principal operating statistics for the Tasmanian system:

**Tasmanian Government Railways
Operating Statistics**

Year					Route-mileage Open (a)	Revenue Train-mileage	Passenger- journeys	Goods and Livestock Carried
					Miles	'000 Miles	'000	'000 Tons
1966-67	..	..	..	..	500	1,274	1,197	1,079
1967-68	..	..	..	..	500	1,247	1,087	1,162
1968-69	..	..	..	..	500	1,197	1,045	1,242
1969-70	..	..	..	..	500	1,180	907	1,258
1970-71	..	..	..	..	500	1,096	871	1,201
1971-72	..	..	..	..	500	1,098	785	1,278

(a) At end of period.

Financial Operations

The following table gives details of gross earnings and working expenses:

**Tasmanian Government Railways
Financial Operations**

Year	Gross Earnings		Working Expenses (a)		Net Earnings (b)	
	Total	Per Revenue Train-mile	Total	Per Revenue Train-mile	Total	Per Revenue Train-mile
	\$'000	\$	\$'000	\$	\$'000	\$
1966-67
1967-68
1968-69
1969-70
1970-71
1971-72

(a) Includes provision for depreciation but excludes interest.

(b) Excess of gross earnings over working expenses.

Employment and Wages

In the table that follows, details are given of the number of employees, and of wages and salaries paid:

**Tasmanian Government Railways
Number of Employees and Wages and Salaries Paid**

Year	Average Number of Employees (a)		Salaries and Wages Paid (\$'000)	Year	Average Number of Employees (a)		Salaries and Wages Paid (\$'000)
	Salaried	On Wages			Salaried	On Wages	
1964-65	1968-69	..	..	..
1965-66	1969-70	..	..	..
1966-67	1970-71	..	..	..
1967-68	1971-72	..	..	..

(a) Excludes construction staff.

Comparison with Other Australian Systems

The Tasmanian system of government railways is the smallest in Australia and the following table, showing principal operational details, allows a comparison to be made:

Australia: Government Railway Systems, 1971-72
Operating Statistics

System	Route-mileage Open	Revenue Train-mileage	Passenger-journeys (a) (b)	Revenue Goods and Livestock Carried (a)	Revenue Net Ton-miles
	Miles	'000 Miles	'000	'000 Tons	Million
N.S.W.	6,061	38,013	208,500	31,800	5,268.6
Victoria	4,154	20,614	137,794	11,609	1,996.2
Queensland	5,940	18,122	31,946	18,963	3,862.0
S.A.	2,413	6,225	13,433	5,919	968.1
W.A.	3,800	7,711	11,150	13,648	2,108.5
Tasmania	500	1,098	785	1,278	103.8
Commonwealth	2,187	3,736	(c) 207	(d) 4,054	1,227.9
Total Australia	25,055	95,519	403,816	87,271	15,535.1

(a) Interstate traffic is included in the total for each system over which it passes.

(b) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys.

(c) Passenger journeys continuing over both the Trans-Australian and Central Australian Railway systems are counted twice. In 1971-72 these numbered 9,100.

(d) Tonnages carried over both the Trans-Australian and Central Australian Railway systems are counted twice. In 1971-72, 203,972 tons were counted twice.

The financial operations of the six State railways and the Commonwealth Government line are shown below:

Australia: Government Railways, 1971-72
Financial Operations
(\$ Million)

System	Gross Earnings (a)	Working Expenses (b)	Net Earnings (c)	Plus Other Earnings Payable to Railways (d)	Less Other Expenses Charged to Railways (e)	Surplus or Deficit
N.S.W.	266.3	263.5	2.8	3.7	39.1	-32.6
Victoria	112.7	138.7	-26.0	0.1	9.7	-35.7
Queensland	124.8	119.7	5.0	..	31.7	(f) -26.7
S.A.	35.4	(g) 46.5	-11.1	19.7	8.6	..
W.A.	63.6	(g) 63.7	-0.1	1.2	13.2	-12.1
Tasmania	6.1	(g) 10.4	-4.3	..	1.5	-5.8
Commonwealth	29.2	(g) 31.5	-2.3	..	..	-2.3
Total Australia	638.1	674.1	-36.1	24.7	103.9	-115.2

(a) Excludes Government Grants and road motor services.

(b) Excludes road motor services.

(c) Gross earnings less working expenses. See notes (a) and (b).

(d) Includes State Government Grants and road motor earnings.

(e) Includes interest and exchange, sinking fund, road motor expenses and other expenses charged to railways.

(f) Includes deficit (\$1,334,699) on the Queensland 4ft 8½ in. gauge.

(g) Includes provision for depreciation.

Financial Comparison

In comparing the financial results of the Tasmanian system with those of other authorities, certain difficulties arise from the treatment of depreciation. In the preceding table, working expenses for the Tasmanian, S.A., W.A. and Commonwealth systems include provision of reserves for depreciation. A further complication arises from the fact that interest is not charged against the railways accounts of the Commonwealth system, and in the Victorian system only in respect of loan expenditure incurred since 1 July 1960.

To the extent that there is differing treatment of interest and of depreciation provisions in the various systems, the 'surplus or deficit' shown in the table is not a good basis for making comparisons; however, if due allowance is made for interest charges in the case of the Commonwealth system, it will be seen that loss, rather than profit, is characteristic of all Australian systems.

GOVERNMENT OMNIBUS SERVICES**Introduction**

The only Government road services in operation from 8 December 1968 (when the Transport Commission road services were discontinued) are those operated by the Metropolitan Transport Trust at Hobart, Launceston and Burnie. Previous to this date the Transport Commission operated omnibus services throughout the State. However, following trading losses on the operation of the Transport Commission's omnibus services during 1965-66 and 1966-67 Parliament refused approval for continuation of the service. The *Transport Commission (Road Transport Undertaking Disposal) Act* 1968 required the Commission to sell its omnibus fleet to a private operator. Disposal of the fleet was completed in December 1968. For statistics of the omnibus services operated by the Transport Commission see the 1970 and earlier *Year Books*.

Metropolitan Transport Trust

Until 1955, tramway, trolley-bus and omnibus services were operated in Hobart and Launceston by the local government authority in each city. The Hobart system had operated without subsidy but the Launceston system received, as one item of revenue, the annual proceeds from a special tramways rate.

The *Metropolitan Transport Act* 1954 empowered the State to enter into agreements for the acquisition of the two systems and to vest them in the newly constituted semi-government authority named in the Act. After negotiation with the two local government authorities, the Trust arranged to take over the Hobart system from 28 February 1955, and the Launceston system from 1 July 1955. It was part of the agreement that the Trust should reimburse to the local government authorities the annual charges relating to the loan debt of each system. Future capital was to come from the State loan fund. During 1959-60, the Trust commenced the operation of omnibus services in Burnie.

The present service is based entirely on omnibuses, although trolley-buses were in use on some Hobart and Launceston routes as late as 1968. It was in October 1960 that the Trust closed down the last of the tramway services in Hobart; Launceston City had closed down all its tramway services before the city transport system was taken over by the Trust in July 1955. One paradoxical feature of recent years is the decline in passenger journeys, despite increases in urban population; increasing private motor vehicle ownership explains this trend.

Financial Operations of Trust

The following table shows the income and expenditure of the Metropolitan Transport Trust:

Metropolitan Transport Trust
Income and Expenditure
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
INCOME					
Traffic Operations	2,125	2,235	2,297	2,284	2,597
Other Earnings	33	35	35	38	41
Subsidy, State Government	875	1,030	1,011	1,418	1,310
Total	3,033	3,300	3,343	3,739	3,948
EXPENDITURE					
Traffic Operations	1,561	1,688	1,785	2,040	2,160
Maintenance	518	492	530	578	596
Power and Fuel	235	226	218	250	267
Workshop and Stores ..	51	49	55	56	65
Administration and General	369	405	415	462	516
Debt Charges	157	156	147	144	146
Depreciation Charges ..	232	234	208	211	199
Total	3,122	3,250	3,358	3,741	3,949

A break-down of income earned from traffic operations in the three centres (Hobart, Launceston and Burnie) for 1971-72 follows (in \$'000): Hobart, 1,897; Launceston, 536; and Burnie, 165.

Loan Debt of Trust

The Trust has now fully repaid all loans originally floated by the Hobart and Launceston City Corporations for tramways. Net advances to the Trust from the State Loan Fund at 30 June 1972 stood at \$2,627,000.

Operating Statistics

The next table shows the principal operating statistics for the Metropolitan Transport Trust:

Metropolitan Transport Trust
Operating Statistics

Particulars	1967-68	1968-69 (a)	1969-70	1970-71	1971-72
Route-miles (b)—					
Trolley-bus	28	221	238	238	239
Omnibus	191				
Vehicle-miles—					
Trolley-bus .. '000	773	151			
Omnibus '000	4,604	5,242	5,430	5,447	5,373
Passenger-journeys .. '000	21,819	21,246	20,707	20,797	19,606

(a) Trolley-buses ceased operating in Launceston on 19 July 1968 and in Hobart on 24 November 1968.

(b) At end of period.

At 30 June 1972 the Metropolitan Transport Trust had a fleet of 295 vehicles comprising 283 passenger buses and 12 maintenance vehicles. Disposition of the fleet was: Hobart, 196 passenger buses and seven maintenance vehicles; Launceston, 65 passenger buses and four maintenance vehicles; and Burnie, 22 passenger buses and one maintenance vehicle.

ROADS AND BRIDGES

Scope

The details in the following section refer to: (i) 'classified' roads; (ii) roads of local government authorities; and (iii) roads of other government authorities. A further qualification is that the roads are those normally open to traffic.

In the first table showing mileages, there has been a substantial reduction in 1971 figures for classified roads and for roads of local government authorities; this is due principally to revisions based on a Public Works Department survey involving actual field measurement, but some of the reduction in the length of the classified system is due to improvements (new by-passes, bend elimination, etc.).

Definitions and Road Lengths

(i) *Classified Roads*: These are roads for which the State Government accepts direct responsibility, the construction and maintenance authority being the Public Works Department. The length of classified (or State) roads at 30 June 1972 was as follows: State Highways, 1,927 kilometres; main roads, 1,065 kilometres; secondary roads, 300 kilometres; tourist roads, 76 kilometres; developmental roads, 144 kilometres; total State roads, 3,512 kilometres.

(ii) *Roads of Local Government Authorities*: The roads for which the local government authorities accepted responsibility at 30 June 1972, comprised: sealed roads, 3,219 kilometres; unsealed roads, 9,794 kilometres; total 13,013 kilometres.

(iii) *Roads of Other Government Authorities*: Roads which were the responsibility of these authorities at 30 June 1972 comprised: roads of the Hydro-Electric Commission, 520 kilometres; Forestry Commission, 3,652 kilometres; total, 4,172 kilometres. The Hydro-Electric Commission roads include the Gordon River Road from Maydena to the Gordon River dam site (85 kilometres) and the Scotts Peak Road which runs from the Gordon River Road to Scotts Peak (35 kilometres). The Gordon River Road was opened for public use in June 1967 but permits to use it have to be obtained from the controlling authority.

It is not generally recognised that the Hydro-Electric Commission, intent on developing the State's power supplies, has made valuable contributions to Tasmania's road system. Roads, originally built to give access to construction sites, have later been absorbed into the classified road system and therefore are available for general use. This type of development has not come to an end and new roads are likely to result from the future operations of the authority in the Pieman River area of the West Coast, and in the region of the major rivers further south. The main areas where the authority's activities have already affected the road system are in the upper Derwent; Great Lake; Mersey Valley; and remote south-west areas.

Surface of Roads

The following table shows lengths of all roads normally open to traffic classified according to road surface and according to the level of government which accepts responsibility for construction and maintenance. The most striking feature is the increase, over the last six years, in the percentage of State (or classified) roads with sealed surfaces. The proportion of sealed roads has increased from 72.7 per cent to 82.7 per cent of the total. The majority of the unsealed State (or classified) roads is located in the centre of the State, where the high altitude *Lake and Lyell Highways* present serious construction problems. However, during 1971-72 further sealing work was carried out on both of these highways. On the *Lake Highway* an additional 3.2 kilometres were sealed while on the *Lyell Highway* the unsealed segment was also reduced by 3.2 kilometres to a section 16.9 kilometres long.

Length of Roads According to Nature of Surface at 30 June

Type of Surface		1967	1968	1969	1970	1971	1972
CLASSIFIED STATE ROADS							
Sealed (a)	kilometres	2,496	2,617	2,739	2,840	2,890	2,905
Unsealed (b)	kilometres	961	925	813	726	618	607
Total ..	kilometres	3,457	3,542	3,552	3,566	3,508	3,512
Sealed Ratio (c) ..	%	72.2	73.9	77.1	79.6	82.4	82.7

ROADS OF LOCAL GOVERNMENT AUTHORITIES (d)

Sealed (a)	kilometres	2,477	2,718	2,969	3,291	3,050	3,219
Unsealed (b)	kilometres	12,096	11,964	11,652	11,413	10,145	9,794
Total ..	kilometres	14,573	14,682	14,621	14,705	13,195	13,013
Sealed Ratio (c) ..	%	17.0	18.5	20.3	22.4	23.1	24.7

ROADS OF OTHER GOVERNMENT AUTHORITIES

Sealed (a)	kilometres	71	84	84	105	119	167
Unsealed (b)	kilometres	3,124	3,278	3,541	3,758	3,853	4,005
Total ..	kilometres	3,195	3,362	3,625	3,862	3,972	4,172
Sealed Ratio (c) ..	%	2.2	2.5	2.3	2.7	3.0	4.0

ALL ROADS (d)

Sealed (a)	kilometres	5,044	5,419	5,792	6,236	6,059	6,292
Unsealed (b)	kilometres	16,180	16,166	16,005	15,897	14,616	14,405
Total ..	kilometres	21,224	21,585	21,797	22,133	20,675	20,697
Sealed Ratio (c) ..	%	23.8	25.1	26.6	28.2	29.3	30.4

(a) Bitumen or concrete.

(b) Includes roads formed or cleared only.

(c) Sealed roads as a proportion of total roads.

(d) See introductory section under 'Scope' for explanation of apparent decrease in lengths in 1971.

Classified (or State) Roads

The next table analyses the length of classified roads according to their description and surface. The principal State highways include the following: (i) *Arthur* (74 kilometres), from Sorell to Port Arthur; (ii) *Bass* (283 kilometres), from Launceston to Marrawah in the far north-west; (iii) *Channel* (95 kilometres), from Hobart to Huonville, via D'Entrecasteaux area; (iv) *Huon* (99 kilometres), from Hobart to Hythe via Dover; (v) *Lake* (150 kilometres), from Deloraine via Great Lake to Melton Mowbray; (vi) *Lyell* (284 kilometres), from Granton, near Hobart, to Strahan; (vii) *Midland* (183 kilometres), from Glenorchy to Launceston; (viii) *Murchison* (77 kilometres), from Zeehan Highway to Waratah area; (ix) *Tasman* (423 kilometres), from Hobart to Launceston, via east coast and St Helens; (x) *Waratah* (72 kilometres), from Somerset to Waratah area.

Classified (or State) Roads
Description and Length of Roads at 30 June 1972
(Kilometres)

Description	Nature of Surface		Total
	Sealed (a)	Unsealed (b)	
Highways	1,769	158	1,927
Main Roads	872	193	1,065
Secondary Roads	139	161	300
Tourist Roads	7	69	76
Developmental Roads	119	25	144
Total	2,906	606	3,512

(a) Bitumen or concrete.

(b) Gravel or stone.

Expenditure on Roads

As indicated in the preface to this section, the responsibility for road construction and maintenance is placed upon the State Government and upon local government and semi-government authorities. The next table gives a detailed analysis only of funds available to the State Government and expenditure from State road funds:

State Road Funds: Receipts and Payments
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
RECEIPTS					
Motor Vehicle Taxation, Registration, Licences, Fees, Fines, etc.	4,396	4,587	4,827	5,033	5,659
Commonwealth Grants	8,000	8,500	9,100	10,230	10,820
State Loan Fund	1,188	739	1,100	1,020	930
Contributions by Local Government Authorities	18	17	18	17	17
Other	438	102	128	93	307
Total	14,040	13,945	15,173	16,393	17,733
PAYMENTS					
Construction and Reconstruction of Roads and Bridges	10,848	10,180	11,322	12,320	12,960
Maintenance of Roads and Bridges	3,159	3,263	3,662	4,297	4,475
Planning and Research .. .. .	..	..	120	185	189
Total	14,007	13,442	15,105	16,802	17,624

Grants under Commonwealth Aid Roads Acts provide the bulk of the funds with a major contribution also coming from motor vehicle taxation, registration fees, etc.

Receipts and Expenditure, Local Government Authorities

Some of the expenditure appearing in the State Road Funds table consists of grants from the State Government to local government authorities, although such grants are not specifically dissected. In Chapter 4, 'Local Government', details will be found of: (i) grants from the State to local government authorities for road purposes; (ii) road rates collected by local government authorities; and (iii) expenditure on road construction and maintenance by local government authorities from revenue, and from loan funds.

The Patterson Bridge

The Patterson Bridge, Tasmania's latest major bridge construction, is located across the mouth of the South Esk River just downstream from the existing Kings Bridge. The new bridge provides a separate connection between the West Tamar Road and the City of Launceston. The existing Kings Bridge is retained as the direct connection between Trevallyn and the City.

The Structure

Patterson Bridge is a continuous three span structure formed from four parallel welded steel box beams with a composite reinforced concrete deck. The box beams are of constant depth and are fabricated from high yield steel. Support for the bridge superstructure is provided by twin reinforced concrete piers set close to the bank at each side of the river and two reinforced concrete abutments. The piers are carried on piles while both abutments are founded on spread footings.

The road alignment requires a horizontal curve of 365.76 metres radius and the profile requires a vertical curve with a general fall of 5.18 metres from the south to the north abutment. This double curvature is achieved by using a regular number of straight beam sections.

Dimensions

A central span, 73.15 metres long over the river, and two flanking spans, each 36.17 metres long give the bridge a total length of 145.50 metres between abutments. The bridge provides two carriageways, each with a 7.32 metre wide pavement surface. The carriageways are separated by a raised 1.83 metre wide median strip which incorporates a central crash rail. Safety curbs are also provided on each side of the bridge. Total width of the structure is 20.73 metres.

MOTOR VEHICLE REGISTRATIONS**General**

Statistics in this section deal with: (i) motor vehicles 'on register' at specific dates; and (ii) new motor vehicles registered within a specified period, e.g. a year.

Definitions

Register: To be allowed on the public roads, motor vehicles, except those owned by the Commonwealth Government, are required to be registered with the State Transport Commission; State Government vehicles, as well as privately-owned vehicles, are registered with this authority. Commonwealth Government-owned vehicles, except those belonging to the defence services, are recorded on a separate Commonwealth register. 'On the register', in this section, refers to both the State and Commonwealth registration records, and to all motor vehicles except those of the defence services. Statistics of new motor vehicle registrations comply with the same definition.

Vehicles Included: The statistics cover cars, station wagons, motor cycles and commercial vehicles. Commercial vehicles as defined include utilities, panel vans, rigid and articulated trucks, other truck type vehicles (i.e. commercial vehicles used for purposes other than freight carrying, e.g. fire engines) and omnibuses. Tractors, trailers and mobile plant and equipment are excluded.

Because of the multi-purpose nature of rear-door sedans it is possible for these types of vehicles to be registered as either cars or station wagons. In these statistics all rear-door sedans are classified as cars.

Vehicles on Register

The following table has been compiled to show, in summary form, the increase in motor vehicles on the register since 1910. To give a convenient measure of this growth, vehicles on the register have been related to the population (vehicles per 1,000 persons), and increases have been expressed as annual averages for each decade.

Motor Vehicles on Register from 1910

At 30 June	Cars and Station Wagons	Commercial Vehicles	Motor Cycles	All Vehicles		
				Total	Per 1,000 of Population	Average Annual Increase (a)
1910	210	(b)	223	433	2	..
1920	2,404	(b)	1,699	4,103	20	367
1930	12,533	2,198	4,814	19,545	89	1,544
1940	17,598	5,235	3,351	26,184	109	664
1950	25,291	12,928	4,941	43,160	156	1,698
1960	63,748	26,352	3,098	93,198	271	5,004
1970	119,274	34,519	3,116	156,909	400	6,371
1972	131,613	35,538	3,960	171,111	436	(c)7,101

(a) For decade ending in year shown.

(b) Included with cars and station wagons.

(c) For two years ended 30 June 1972.

The next table gives details of motor vehicles on the register during the past decade; annual increases are shown to allow comparison with the average annual rates for each decade appearing in the previous historical table.

Motor Vehicles on Register

At 31 December	Cars and Station Wagons	Commercial Vehicles	Motor Cycles	All Vehicles		
				Total	Per 1,000 of Population	Annual Increase
1963	81,642	28,125	1,856	111,623	308	6,550
1964	88,084	29,005	1,586	118,675	324	7,052
1965	94,039	29,823	1,441	125,303	339	6,628
1966	99,947	31,184	1,562	132,693	355	7,390
1967	104,652	31,908	1,833	138,393	366	5,700
1968	111,163	33,218	2,501	146,882	384	8,489
1969	116,785	34,210	2,948	153,943	398	7,061
1970	122,790	34,753	3,281	160,824	413	6,881
1971	128,880	35,362	3,662	167,904	428	7,080
1972	134,162	35,650	4,154	173,966	440	6,062

Motor Vehicles on Register in Australia

While different concepts of what constitutes 'motor vehicles on register' at a particular point of time may be appropriate for different purposes; for the purpose of obtaining uniform statistics for all States and Territories, it is necessary to adopt a common concept of what constitutes 'motor vehicles on register' at a particular date. For this series, the Bureau has adopted the concept of motor vehicles on register at a particular date as being:

- (i) vehicles whose fees were paid up at that date, in respect of that date; and
 (ii) vehicles whose fees were not paid up at that date but subsequently were paid retrospectively to that date (or to an earlier date);

and excluding all vehicles whose fees were not subsequently paid up in respect of that particular date, even though at that date their registrations may not have been formally terminated.

The following table shows estimated details of motor vehicles on the register for each State and Territory at 30 June 1972. The figures are based on the preliminary results of a census of motor vehicles conducted in respect of 30 September 1971 and are not comparable with those published for previous periods. They will be revised when the final results of this census become available. Motor vehicles on register are compiled from data supplied by the various registration authorities and include diplomatic and consular vehicles and all Commonwealth-owned vehicles other than those belonging to the defence services.

Australia: Motor Vehicles on Register, 30 June 1972 *p*

State or Territory	Cars and Station Wagons	Commercial Vehicles	Motor Cycles	All Vehicles	
				Total	Per 1,000 of Population
	'000	'000	'000	'000	no.
N.S.W.	1,468	341	74	1,883	404
Victoria	1,169	239	35	1,442	407
Queensland	568	179	32	779	417
S.A.	406	91	20	516	435
W.A.	346	105	15	466	442
Tasmania	131	34	4	168	428
N.T.	18	11	2	32	344
A.C.T.	60	8	3	72	455
Total	4,167	1,008	184	5,359	414

Registration of New Motor Vehicles

In the next table, details are shown of new motor vehicles registered in Tasmania over a five-year period:

Annual Registrations of New Motor Vehicles

Type of Vehicle	1968	1969	1970	1971	1972
Cars	9,915	9,798	10,364	10,633	11,051
Station Wagons	1,396	1,335	1,250	1,282	1,204
Utilities	1,134	1,114	1,144	1,076	1,054
Panel Vans	479	522	532	624	486
Trucks	680	777	720	714	892
Motor Cycles	851	763	804	851	1,089
Other (a)	115	90	109	108	83
Total	14,570	14,399	14,923	15,288	15,859

(a) Includes omnibuses, ambulances and hearses.

New Registrations According to Make

The table that follows analyses Tasmanian registrations of new cars and new station wagons according to make, and illustrates the present popularity of Holden, Ford, Chrysler, Datsun and Toyota makes.

Registrations of New Cars and New Station Wagons, 1972
Classified to Predominant Make

Make	Cars		Station Wagons	
	Number	Proportion of Total Cars (Per Cent)	Number	Proportion of Total Station Wagons (Per Cent)
Austin	164	1.5	..	..
B.M.W.	19	0.2	..	..
Chrysler	1,042	9.4	96	8.0
Datsun	944	8.5	62	5.1
Fiat	71	0.6	..	..
Ford	2,780	25.2	251	20.9
Holden	3,546	32.1	687	57.1
Honda	38	0.3	..	..
Jaguar	12	0.1	..	..
M.G.	26	0.2	..	..
Mazda	301	2.7	9	0.8
Mercedes Benz	40	0.4	..	..
Morris	516	4.7	..	..
Peugeot	85	0.8	..	..
Rambler	10	0.1	1	0.1
Renault	203	1.8	12	1.0
Rover	14	0.1	..	..
Statesman	78	0.7	..	..
Toyota	804	7.3	16	1.3
Triumph	68	0.6	..	..
Volkswagen	214	1.9	53	4.4
Volvo	50	0.5	3	0.2
Other	26	0.2	14	1.2
Total	11,051	100.0	1,204	100.0

'Scrapping' of Motor Vehicles

Apart from the few 'veteran' cars owned by enthusiasts, most vehicles are eventually scrapped. No information is collected on the number scrapped each year but the following table contains information from which some inferences may be drawn:

New Motor Vehicles Registered and Annual Increase in Motor Vehicles on Register

Particulars	1967	1968	1969	1970	1971	1972
New Motor Vehicles Registered (a)	14,369	14,570	14,399	14,923	15,288	15,859
Annual Increase, Motor Vehicles on Register (b)	5,700	8,489	7,061	6,881	7,080	6,062

(a) During year ended 31 December.

(b) Annual increase measured at 31 December.

In comparing the two sets of figures in the previous table, it would be wrong to assume that the difference in each year represented scrapped vehicles only; exceptions would include vehicles transferred interstate and vehicles 'on blocks'—the fact that an owner has let a registration expire does not necessarily mean that he intends to scrap his vehicle. Subject to these and similar difficulties of interpretation, it would appear that about eight thousand motor vehicles have been scrapped annually since 1967.

ROAD TRAFFIC ACCIDENTS IN TASMANIA

Scope of Statistics

With the rapid development of road transport, there has been an increase in the number of road traffic accidents; some merely involve damage to vehicles, but others result in injury or death. To evolve meaningful statistics describing these events, it has been found necessary to narrow the field of observation to those road traffic accidents which involve casualties, since most accidents resulting only in vehicle damage are not required by law to be reported to the police (the drivers might merely exchange names and report to their respective insurance companies). Further, there is the difficulty of fixing, in monetary terms, some valid standard for determining what degree of vehicle damage warrants inclusion of an accident in a long-term statistical series—obviously \$20 or \$50 for repairs in 1950 is not comparable with \$20 or \$50 for repairs now.

For these and other reasons, the statistics in this section are restricted to details of those road traffic accidents involving casualties requiring medical or surgical treatment, or causing death and which were recorded by the police.

Source of Data

Details of each road traffic accident reported to the police, or investigated by the police, are recorded on a standard form and copies are made available to the Transport Commission and to the Bureau of Census and Statistics; at the Bureau, quarterly statistics are compiled only from those reports describing accidents involving casualties. The Transport Commission employs the reports it receives in connection with road engineering, the location of traffic signs and signals, the pin-pointing of dangerous locations, traffic engineering, and accident prevention in general.

Responsibility for, and Cause of, Accidents

For the purposes of the statistics in this section, the police officer reporting the accident determines, on the basis of the evidence available, the road user or agency responsible, and also the cause of the accident. The fact that civil or criminal courts may later make different decisions on these matters is disregarded in these statistics; nor is any attempt made to distinguish between accidents giving rise to subsequent legal action and those not doing so.

Causes of Accidents

Causes of accidents in Australian States are classified, for statistical purposes, in accordance with a standard list of 76 prime causes (although, in this section, only the most frequent causes are shown). Contributory causes and conflicting or incomplete evidence make precise classification difficult. No provision is made to record and classify such antecedent causes as fatigue, discourtesy, impatience or other driving faults. However, since July 1971 accidents where consumption of alcohol is involved have been given a special classification. Where the blood alcohol level of the road user considered responsible is 0.05 (grams of alcohol per 100 millilitres of blood) or greater, this is recorded separately and no cause for the accident is assigned. The same practice is followed for road users who were reported 'obviously affected by alcohol' by the Police and: (i) refused breath and/or blood tests; or (ii) had a blood alcohol level under 0.05; or (iii) were not tested because facilities were not readily available. The assumption in each case is that the road users' skills were impaired or may have been impaired by alcohol to such an extent as to have led to the accident.

Road Traffic Accident Statistics

The following table summarises the principal statistics of road traffic accidents involving casualties from 1949-50:

Road Traffic Accidents Involving Casualties, Selected Years from 1949-50

Period	Accidents		Persons			
	Number	Per 10,000 Vehicles Registered (a)	Killed		Injured	
			Number	Per 10,000 Vehicles Registered (a)	Number	Per 10,000 Vehicles Registered (a)
1949-50	969	242	64	16.0	1,154	288
1959-60	743	82	79	8.7	1,004	111
1964-65	1,180	99	97	8.2	1,692	142
1967-68	1,268	91	112	8.1	1,990	143
1968-69	1,400	95	122	8.3	2,228	151
1969-70	1,413	92	122	7.9	2,268	147
1970-71	1,396	87	124	7.7	2,031	126
1971-72	1,371	80	118	6.9	1,984	116

(a) Based on average number of motor vehicles on register during period. 'Vehicles on Register' is defined in the earlier section headed 'Motor Vehicle Registrations'.

Location of Accidents

The first table shows the location of accidents in the State:

Road Traffic Accidents and Casualties by Local Government Area, 1971-72

Local Government Area	Accidents Involving Casualties	Persons Killed	Persons Injured
Hobart	265	13	355
Launceston	155	5	194
Glenorchy	158	17	210
Clarence	98	4	140
Burnie	74	4	101
Devonport	62	2	112
Other	559	73	872
Total	1,371	118	1,984

Responsibility for Road Accidents

The next table shows the type of road user or agency believed responsible:

Responsibility for Road Traffic Accidents, 1971-72

Responsibility Attributed to—	Accidents Involving Casualties	Persons Killed	Persons Injured
Drivers of Motor Vehicles	1,002	82	1,604
Riders of Motor Cycles	71	8	71
Pedal Cyclists	28	1	28
Pedestrians	192	22	180
Passengers	6	1	6
Motor Vehicle Defects	20	..	29
Motor Cycle Defects	1	..	1
Pedal Cycle Defects .. .. .	..	..	..
Animals	3	..	4
Road Conditions	18	1	22
Weather	3	..	3
Parties not Involved (a)	21	1	31
Other Causes	6	2	5
Total	1,371	118	1,984

(a) e.g. a car collides with another, after swerving to avoid a pedestrian who is not struck.

Causes of Accidents—Drivers of Motor Vehicles Responsible

The next table analyses accidents for which drivers of motor vehicles were believed responsible. It features the new data on alcohol and its association with accidents; see earlier section 'Causes of Accidents'.

Road Traffic Accidents Caused by Drivers of Motor Vehicles, 1971-72

Classification According to Cause

Principal Causes of Accidents for which Drivers of Motor Vehicles (excluding Motor Cycles) were Responsible	Accidents Involving Casualties	Persons Killed	Persons Injured
Accidents Involving Alcohol—			
Driver's Blood Alcohol Level 0.05 (a) or Greater	244	25	393
Driver Refused Test	5	..	6
Other Cases (b)	25	2	33
Other Accidents—			
Excessive Speed Having Regard to Conditions	145	20	235
Not Keeping to the Left	82	8	170
Not Giving Right of Way	169	4	263
Failing to Make Right-hand Turn with Due Care	54	1	82
Inexperience	28	1	62
Inattentive Driving	107	6	150
Reversing Without Care	6	..	6
Overtaking Without Sufficient Clearance	32	7	69
Following Other Vehicle Too Closely	38	..	52
Infirmity of Driver	3	..	4
Driver Asleep or Drowsy	17	3	17
Dazzled by Lights of Approaching Vehicle	5	..	9
Failing to Signal Intention of Turning or Stopping	8	..	12
Pulling out from Kerb Without Warning	15	..	23
Failing to Observe Traffic Sign or Signal	2	..	2
Crossing Railway Level Crossing Without Due Care	2	1	1
Hit-run (n.e.i.)	9	..	12
Other Causes	6	4	3
Total	1,002	82	1,604

(a) Grams of alcohol per 100 millilitres of blood.

(b) Driver reported obviously affected by alcohol by Police but blood alcohol level less than 0.05, or not tested because facilities not readily available.

A summary of road traffic accidents for which drivers of motor vehicles were responsible follows:

Road Traffic Accidents, Drivers of Motor Vehicles Responsible (a): Summary

Accidents Involving Casualties	1967-68	1968-69	1969-70	1970-71	1971-72
Drivers of Motor Vehicles Responsible—					
Number of Accidents	996	1,077	1,032	1,004	1,002
Proportion of Total Accidents %	78.5	76.9	73.0	71.9	73.1

(a) Excludes riders of motor cycles.

Alcohol-factor Accidents, Drivers of Motor Vehicles Responsible

The following table shows the blood alcohol level and age group of drivers of motor vehicles (excluding motor cycles) believed responsible for casualty accidents:

Road Traffic Accidents, Drivers of Motor Vehicles Responsible, 1971-72
According to Blood Alcohol Level and Age Group

Blood Alcohol Level (a)	Age Group of Drivers Responsible (in Years)								Total
	20 and Under	21-24	25-29	30-39	40-49	50-59	60 and Over	Not Stated	
Less than 0.05	2	..	..	..	..	..	..	..	2
0.05	10	1	2	2	1	..	..	..	16
0.06	1	2	1	1	..	2	..	..	7
0.07	4	5	2	1	2	..	..	..	14
0.08	5	9	3	1	..	2	1	..	21
0.09	3	3	..	1	..	..	..	..	7
0.10	5	1	1	1	1	1	1	..	11
0.11 or 0.12	12	10	3	6	2	3	..	..	36
0.13 or 0.14	9	6	9	5	3	4	..	..	36
0.15 or 0.16	10	10	4	9	5	..	1	1	40
0.17 or 0.18	4	6	6	4	8	..	..	..	28
0.19 or 0.20	1	4	5	4	1	..	1	..	16
0.21 or 0.22	1	1	..	..	..	1	..	..	3
0.23 or 0.24	1	..	2	1	..	..	..	..	4
0.25 or 0.26 .. ..	..	..	1	1	..	1	..	..	3
0.27 or 0.28 .. ..	..	..	..	..	1	..	..	..	1
0.29 or 0.30 .. ..	..	..	..	..	1	..	..	..	1
0.31 or Above .. ..	..	..	..	..	..	..	..	..	..
Refused Test .. ..	..	3	..	1	1	..	..	..	5
Test Facilities not Available	8	3	5	3	2	..	2	..	23
Total	76	64	44	41	28	14	6	1	274

(a) Grams of alcohol per 100 millilitres of blood.

Drivers Involved in Accidents, Age Group and Licence Type

During 1971-72 a total of 1,895 drivers of motor vehicles (excluding motor cycles) were involved in casualty accidents which were reported to the police. The age group and type of driving licence held by these drivers at the time of the accident are shown in the next table:

Road Traffic Accidents, Drivers of Motor Vehicles Involved, 1971-72
According to Licence Type and Age Group

Type of Driving Licence	Age Group of Drivers Involved (in Years)								Total Drivers Involved
	Under 21	21-24	25-29	30-39	40-49	50-59	60 and Over	Not Stated	
Learner	17	5	2	4	4	2	2	..	36
Provisional	387	63	37	26	16	3	..	6	538
Ordinary	51	223	182	232	206	141	91	15	1,141
Interstate or International	6	15	14	10	5	2	2	1	55
No Licence	26	21	11	4	6	4	3	4	79
Not Known	4	4	3	2	..	5	1	27	46
Total	491	331	249	278	237	157	99	53	1,895

Causes of Accidents—Pedestrians Responsible

The table below analyses road traffic accidents for which pedestrians were held responsible. It features the new data on alcohol and its association with accidents defined in the introduction to this section under 'Causes of Accidents'.

Road Traffic Accidents, Pedestrians Responsible, 1971-72
Classification According to Cause

Principal Causes of Accidents for which Pedestrians were Responsible	Accidents Involving Casualties	Persons Killed	Persons Injured
Accidents Involving Alcohol—			
Pedestrians Blood Alcohol Level 0.05 (a) or Greater	4	2	2
Pedestrians Refused Test .. ..	..	..	..
Other Cases (b)	10	2	9
Other Accidents—			
Walking Across Roadway Without Due Care	86	9	84
Running Across Roadway	34	2	32
Passing Behind or in Front of Moving or Stationary Vehicle or Object	14	3	11
Stepping Off Kerb Without Due Care	4	..	5
Children Under Seven Years of Age not Under, or Breaking Away from, the Supervision of an Older Person	33	2	32
Other Causes	7	2	5
Total	192	22	180

(a) Grams of alcohol per 100 millilitres of blood.

(b) Pedestrian reported 'obviously affected by alcohol' by Police but blood alcohol level less than 0.05, or not tested because facilities not readily available.

Road Features and Accidents

The next table analyses all accidents according to the road features at the site:

Features of Roadways on Which Accidents Occurred, 1971-72

Feature of Roadway	Accidents Involving Casualties	Persons Killed	Persons Injured
At Intersections—			
Controlled	59	2	83
Uncontrolled	394	22	545
Other than at Intersections—			
Straight Road	508	43	698
Bend or Curve	396	50	636
Bridge, Culvert or Causeway	10	..	17
Other Locations	4	1	5
Total	1,371	118	1,984

Road Users Killed or Injured

The next table analyses the type of road user killed or injured:

Type of Road User Killed or Injured, 1971-72

Type of Road User Involved	Killed			Injured		
	Males	Females	Persons	Males	Females	Persons
Drivers of Motor Vehicles	39	6	45	600	178	778
Motor Cyclists	8	1	9	142	7	149
Pedal Cyclists	2	..	2	38	2	40
Passengers—Motor Vehicle	20	10	30	382	404	786
Motor Cycle	1	1	2	9	4	13
Pedal Cycle .. ..	..	..	..	1	1	2
Pedestrians	22	7	29	117	99	216
Other	1	..	1	..	..	..
Total	93	25	118	1,289	695	1,984

Types of Accidents

Most accidents arise from collisions between vehicles, followed by vehicles overturning or leaving the road, as shown in the following analysis:

Types of Accidents, 1971-72

Types of Accidents	Accidents Involving Casualties	Persons Killed	Persons Injured
Collisions Between Vehicles—			
Angle	319	9	479
Head On	144	22	292
Rear End	100	5	143
Side Swipe—Same Direction	44	1	59
Opposite Direction	69	2	113
Vehicle—			
Overturning or Leaving Road	397	46	600
Colliding With—Fixed Object (incl. Parked Vehicle)	47	1	64
Pedestrian	237	29	221
Animal	3	..	4
Passenger Accidents	7	2	6
Other Types of Accidents	4	1	3
Total	1,371	118	1,984

Age and Responsibility

Drivers of motor vehicles (excluding motor cycles) were believed responsible for 1,002 out of the 1,371 accidents involving casualties which were reported to the police during 1971-72. The following table analyses the age and sex of the drivers responsible:

Road Traffic Accidents, 1971-72
Age and Sex of Drivers of Motor Vehicles Responsible

Age Group of Drivers Responsible (in Years)	Male Driver			Female Driver		
	Accidents Involving Casualties	Persons Killed (a)	Persons Injured (a)	Accidents Involving Casualties	Persons Killed (a)	Persons Injured (a)
Under 17	10	4	14	1	..	3
17-20	257	26	478	34	1	61
21-24	153	11	234	31	2	54
25-29	105	13	139	21	..	35
30-39	105	9	166	25	..	43
40-49	82	4	114	18	2	26
50-59	65	4	105	12	..	18
60 and Over	52	4	73	8	2	9
Not Stated (b)	21	..	30	2	..	2
Total	850	75	1,353	152	7	251

(a) The age groups relate to the driver who may, or may not be included in the casualty figures.

(b) Including accidents for which hit-run drivers were responsible.

Days of the Week on Which Accidents Occurred

The following table shows accidents and casualties according to the day of the week on which they occurred:

Road Traffic Accidents, 1971-72
Days of the Week on Which Accidents Occurred

Day of the Week	Accidents Involving Casualties	Persons Killed	Persons Injured
Monday	127	8	157
Tuesday	131	10	170
Wednesday	134	14	176
Thursday	182	11	241
Friday	266	29	414
Saturday	317	30	468
Sunday	214	16	358
Total	1,371	118	1,984

Age and Sex of Road Users Killed

The next table shows the age and sex of the various types of road user killed:

Road Traffic Accidents, 1971-72
Age and Sex of Road Users Killed

Age Group (in Years)	Type of Road User Killed					All Road Users
	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Passengers (All Types)	Pedestrians	

MALES

Under 7 .. .. .	..	..	1	..	1	2
7-16	2	2	..	..	..	4
17-20	10	3	..	10	3	26
21-29	15	2	..	7	2	26
30-39	3	..	..	1	3	(a)8
40-49	2	..	..	..	2	4
50-59	2	..	..	1	5	8
60 and Over	5	1	1	2	6	15
Not Stated .. .. .	..	..	..	..	..	..
Total	39	8	2	21	22	93

FEMALES

Under 7 .. .. .	..	..	..	1	1	2
7-16 .. .. .	..	..	..	2	1	3
17-20	1	1	..	3	..	5
21-29	3	..	..	2	..	5
30-39 .. .. .	..	..	..	..	..	..
40-49	1	..	..	..	1	2
50-59 .. .. .	..	..	..	2	..	2
60 and Over	1	..	..	1	4	6
Not Stated .. .. .	..	..	..	..	..	..
Total	6	1	..	11	7	25

(a) Includes one rider of a horse.

CIVIL AVIATION IN TASMANIA

Introduction

On 16 December 1919 Lt Arthur Long of the Army Flying Corps crossed Bass Strait to Melbourne. Shortly afterwards he started an aerial newspaper-carrying business between Hobart and Launceston.

In January 1931 a scheduled air service from Melbourne to Hobart was commenced by Australian National Airways, but only operated until June 1931. Separate Launceston-Flinders Island services were commenced in 1932 by L. Johnson and the Holyman brothers—these two services were soon merged to become Tasmanian Aerial Services.

Across Bass Strait services were reintroduced in 1933 by two operators (Matthews Aviation operating via King Island and Hart Aircraft via Flinders Island). In the same year Tasmanian Aerial services extended their Launceston-Flinders Island run to Melbourne. Matthews Aviation and Hart Aircraft ceased operations in 1934 and Tasmanian Aerial Services was reformed and renamed Holymans Airways. The company introduced, in October 1934, four-engined DH86 bi-planes on the Bass Strait routes—six crossings were made each week (three via King Island and three via Flinders Island). In 1936 Holymans put a Douglas DC 2 monoplane on a daily Melbourne-Launceston-Hobart service in addition to the DH86 services. In November 1936 Holymans merged with Adelaide Airways and West Australian Airways—the new company was named Australian National Airways.

In November 1946 the newly formed Australian Government airline, Trans-Australian Airlines, began services from Melbourne to Launceston and Hobart. Ansett Airways entered the Tasmanian air services in November 1946. (Ansett Airways and A.N.A. merged in 1957 to become Ansett-A.N.A.; this name was changed in 1968 to Ansett Airlines of Australia.)

Currently passenger services to and from Tasmania are operated by Ansett Airlines of Australia and Trans-Australian Airlines. With the exception of two return Sydney-Hobart flights each week all other services to and from Tasmania pass through Melbourne. Weekly passenger services from the mainland to Tasmania at the end of August 1973 were: 90 jet passenger flights (mainly provided by McDonnell-Douglas DC 9 aircraft); and 76 Fokker Friendship flights.

Ansett Airlines also operates a scheduled freight service between Melbourne and Launceston using Lockheed Electra freighters. T.A.A. use quick-change Fokker Friendships on freight services to Hobart, Launceston, Devonport and Wynyard.

Intrastate Services

Supplementary intrastate services have operated since May 1964. Air Tasmania operates commuter services on the intrastate routes linking Hobart, Launceston, Devonport, Wynyard, Queenstown and Strahan.

Administration of the Air Navigation Act and Regulations in Tasmania

The Federal *Air Navigation Act* 1920-71 and associated regulations are administered for Tasmania by the Regional Director, Victoria-Tasmania region; the authority is the Civil Aviation Department. The Department's more important functions include the provision and maintenance of government aerodromes, the licensing of aircraft and pilots, and a responsibility for supervising all aspects of air safety.

Classification of Flying Activities

Flying activities are classified by regulation into the following well-defined categories:

(i) *Private Operations*: Private use of aircraft may be gauged by the fact that there were 500 licensed *private* pilots in the State in June 1973.

(ii) *Aerial Work Operations*: These operations refer to aircraft used for aerial survey; spotting; agriculture; advertising; flying training; ambulance service; police or customs work; or for the carriage of goods owned by the pilot, the owner or the hirer, for the purposes of trade. Within Tasmania there are five licensed flying training organisations and one aerial agricultural organisation carrying out most of the aerial work activities.

(iii) *Charter Operations*: These refer to aircraft hired for passenger or freight movement, but not according to fixed schedules, or to and from fixed terminals. There were 12 licensed charter operators based in Tasmania in June 1973.

(iv) *Commuter Operations*: These are charter operations on a fixed schedule, and to or from fixed terminals; they are authorised by an exemption granted under Air Navigation Regulations. Tasmania has one approved operator.

(v) *Regular Public Transport*: This refers to aircraft carrying freight and passengers according to fixed schedule, and operating on specified routes. All services of this kind are provided in Tasmania by T.A.A. and Ansett Airlines.

Tasmanian Aerodromes

The major aerodromes in Tasmania are owned and operated by the Commonwealth Government through the Department of Civil Aviation. The following describes both Commonwealth-owned and other aerodromes in use at 30 June 1973.

Hobart

Hobart airport, Commonwealth-owned, is 11 miles east of the city and ranks seventh in the volume of passengers handled at Australian terminals. It was completed in 1956. Extension and strengthening of the runway, taxiway and aprons to take DC9 and Boeing 727 aircraft at full weight was completed in 1966. The airport is equipped with complex aviation aids.

Launceston

This Commonwealth-owned airport, 10 miles south-east of Launceston, ranks next after Hobart in passenger volume but handles considerably more freight.

The area control centre provides air traffic control for Tasmania via repeater stations, south on Mt Wellington and north on Mt Barrow. The airport is also used for flying training and other light aircraft charter and aerial work operations.

Devonport

The Devonport Commonwealth-owned aerodrome was originally constructed in the early 1930s. In 1950 it was developed to handle DC3, DC4 and Viscount type aircraft. Regular passenger services (using F27 aircraft), aerial and charter work, flying training and private operations are carried on from this location.

Wynyard

The Wynyard Commonwealth-owned aerodrome has one sealed runway 4,400 feet and one 3,900 feet long for regular public transport operations, charter, aerial work and private operations.

King Island

King Island airport is a Commonwealth-owned aerodrome situated four miles north-east of Currie. It has three gravel runways, night lighting and radio navigational equipment.

Flinders Island

Flinders Island Commonwealth-owned aerodrome is situated three miles north of White-mark. It has three grassed landing strips strengthened with some gravel and is equipped with aircraft navigation aids and radio.

Smithton

Situated two miles west of Smithton, this licensed aerodrome is owned by the Transport Commission. It has a sealed main runway plus lesser gravel strips and is used for itinerant charter and private flights.

St Helens

St Helens has a licensed aerodrome owned and operated by the Municipality of Portland. A grassed strip 3,900 feet long and 300 feet wide is of sufficient dimension to permit operations by DC₃ and F₂₇ type aircraft. The aerodrome currently serves the charter, aerial work and private operation requirements for the area and has a non-directional beacon for instrument navigation.

Queenstown

The Municipality of Queenstown provided an authorised landing area for light aircraft in 1937. In 1963 work was commenced on the construction of a runway suitable for the operation of DC₃ type aircraft at Queenstown under the Local Ownership Plan; it was opened on 17 April 1966.

Strahan

The port of Strahan serves the west coast of Tasmania and, in particular, the Queenstown and Zeehan areas. Opened for regular public transport operations in 1964, Strahan aerodrome was constructed under the Commonwealth Aerodrome Local Ownership Plan and is owned by the Municipality of Strahan.

Cambridge

This government aerodrome was constructed during the early days of aviation and comprised four runways. With hills in the near vicinity the site could not be developed and, following construction of the new Hobart Airport, was retained for flying training activities and light aircraft operations.

Aircraft, Passenger and Freight Movements

The following table shows the number of aircraft movements at the principal airports in Tasmania during the past decade. For the purposes of the statistics in this table a take-off is regarded as one movement and a landing as another.

Aircraft Movements: Principal Airports

Year	Hobart	Launceston	Devonport	Wynyard	King Is.	Flinders Is.
1962	6,233	11,318	2,058	2,142	1,338	772
1963	6,342	11,424	2,126	2,100	1,338	876
1964	8,198	12,136	3,418	3,240	1,430	1,030
1965	8,108	12,085	3,456	3,566	1,408	1,036
1966	7,914	11,299	3,525	3,469	1,342	940
1967	7,680	10,707	4,221	4,350	1,272	770
1968	7,671	11,386	3,754	4,055	1,278	728
1969	7,216	10,658	3,643	4,192	1,212	657
1970	(a) 6,301	10,463	3,649	3,727	1,297	600
1971	(a) 6,404	11,165	4,039	4,056	1,221	609
1972	(a) 6,254	10,581	4,147	4,144	1,283	591

(a) The phasing-out of turbo-prop aircraft and the introduction of pure jet aircraft has increased carrying capacity and reduced the number of flights required.

The next table shows the volume of passengers and freight handled at each airport; the following definitions apply:

Passengers: The figures are for fare-paying passengers only at each airport and are the sum of embarkations and disembarkations.

Freight: The figures are the sum (in tons of 2,000 lb) of all revenue freight (including excess baggage) loaded and unloaded at each airport.

Passenger and Freight Movements: Principal Airports (a)

Year	Hobart	Launceston	Devonport	Wynyard	King Is.	Flinders Is.
PASSENGERS ('000)						
1968	190	161	64	54	17	10
1969	198	176	70	60	18	11
1970	209	186	67	64	20	10
1971	226	205	76	71	23	10
1972	236	216	76	69	23	11
FREIGHT (SHORT TONS)						
1968	6,193	8,299	653	1,114	458	375
1969	7,027	8,467	322	1,694	452	318
1970	7,392	10,487	320	310	435	207
1971	7,439	10,726	367	315	519	177
1972	7,151	10,694	350	294	442	130

(a) See definitions preceding this table.

Comparison of Principal Australian Airports

The next table shows the volume of activity at the principal Australian airports in terms of the number of passengers, freight and aircraft movements. Details of international services have been excluded so that comparisons are purely in terms of domestic traffic (international services are centred on Melbourne, Sydney, Brisbane and Perth).

**Australia: Principal Airports
Passengers, Freight and Aircraft Movements (a), 1972**

Airport	Passengers	Freight (Short Tons)	Aircraft Movements
Sydney	3,847,987	46,994	78,116
Melbourne	2,950,316	52,322	59,985
Brisbane	1,512,515	22,425	32,595
Adelaide	1,074,506	15,078	21,582
Perth	524,258	9,183	10,447
Canberra	726,537	3,963	17,414
Hobart	235,621	7,151	6,254
Launceston	216,487	10,694	10,581

(a) See definitions earlier in this section.

POSTAL AND TELECOMMUNICATION SERVICES

Development of Communication Services

General

The Commonwealth Postmaster-General's Department provides and controls postal facilities and telecommunication services in Tasmania. Basically the Australian Post Office consists of two services, *postal* and *telecommunications*, supported by engineering, supply, finance and accounting, personnel and administration establishments.

The Postal Service

The first long-distance mail service in Australia was started between Hobart and Launceston in 1816, the carrier walking both ways and taking a fortnight for the round trip.

By 1835 Hobart Town and its environs was served by a thrice daily, twopenny post; today the service is once per day at a cost of seven cents. The number of individual postal articles handled in Tasmania in 1971-72 amounted to 60 million as compared with more than 2,604 million articles handled by the Post Office throughout Australia.

All letter class mail, within the dimensions of *Post Haste*, to and from Tasmania is carried by air, free of airmail surcharge, while the bulk of 'Other Article' mail is received and despatched daily by ship. In the more heavily populated areas of the State, one mail delivery is made daily except in the Hobart inner-city area where two deliveries are effected. The rationalisation of rural postal services in recent years has preceded improvement of rural mail delivery services.

Telecommunications

Hobart and Launceston were linked by a telegraph line in 1857 and two years later a Bass Strait cable was in operation, only to fail in 1861. By 1869 a second cable was laid and communication with overseas countries became possible in 1872 when the Overland Telegraph was established between Adelaide and Darwin.

The first telephone line in Tasmania linked Hobart and Mt Nelson signal station in 1880, both Hobart and Launceston having exchanges by 1883. However, no link with Victoria or overseas countries was provided until 1936.

The State is now served with a network of high-capacity, high-quality trunk channels which are extended to other Australian States and linked with the Seacom and Compac cables connecting Australia to overseas countries. There are also links to the Overseas Telecommunications Commission earth satellite stations at Carnarvon, Ceduna and Moree.

Telegraph: The teleprinter exchange (TELEX) had only one Tasmanian subscriber in 1957 but 267 were connected by 30 June 1972. The TELEX service is fully automatic and subscribers can now contact each other without an exchange operator's assistance. Calls can be made automatically to many overseas countries tied in with Australian telegraphic services, while the remainder can be contacted through an exchange operator.

Telephones: The Post Office is working towards a highly automated telephone system in Tasmania. More than 93 per cent of telephone subscribers in the State are connected to automatic exchanges which provide continuous service.

The installation, in recent years, of the high-capacity trunk channels, known as the Broadband System, together with modern trunk switching exchanges, has enabled the Post Office to provide Subscriber Trunk Dialling (S.T.D.) facilities for the direct dialling of trunk calls. This facility enables subscribers to make direct long-distance calls to anywhere in Australia, where the facility operates, by simply dialling the required number. Nearly 90 per cent of telephone subscribers in Tasmania have access to S.T.D. which avoids the delays associated with manually-operated exchanges. Charges are based on actual time used and there is no minimum time period as with manually booked trunk calls.

Facilities for Data Transmission are also available from the Post Office in Tasmania.

Construction: In recent years, the Post Office in Tasmania has had a policy of installing underground cables which have higher traffic densities. This policy, resulting in a reduction of overhead wires, is illustrated in the following table:

Cable and Aerial Wire Mileages at 30 June

Particulars	1968	1969	1970	1971	1972
Aerial Wire, Single Wire Mileage ..	48,398	45,732	32,815	28,302	23,391
Conductors in Cable, Single Wire Mileage (a)	633,709	698,168	761,300	792,991	833,225
Co-axial Cable, Tube Miles (a)	437	573	563	586	586

(a) Laid underground.

Employment

The next tables analyse the total number employed by the Department in Tasmania:

Postmaster-General's Department
Persons Employed by Category at 30 June 1972

Full-time Employees (a)	No.	Others	No.
Permanent Officers	2,774	Non-official Postmasters and Staff ..	320
Temporary and Exempt Officers (b) ..	601	Telephone Office Keepers	6
		Mail Contractors (c)	82
		Part-time Employees	114
Total	3,375	Total	522

(a) Full-time employees are those directly under the control of the Department. The remainder shown as 'Others' provide services, which may or may not occupy their full time, under contract or in return for payments appropriate to work performed.

(b) Exempt staff are persons exempt from the provisions of the *Public Service Act* (Federal).

(c) Includes persons employed to drive vehicles.

Persons Employed at 30 June (a): Summary

Year	Number	Year	Number
1963	4,144	1968	4,188
1964	4,184	1969	4,034
1965	4,169	1970	4,030
1966	4,254	1971	3,828
1967	4,247	1972	3,897

(a) Total full-time and other persons included in preceding table.

Revenue and Expenditure

The table that follows gives details of the financial operations of the Department in Tasmania. The following points of explanation are necessary:

Cash Receipts: Prior to 1968-69, cash receipts were paid into the Commonwealth Consolidated Revenue Fund; since 1968-69, they have been paid into the Post Office Trust Account which forms part of the Trust Fund of the Commonwealth.

Cash Expenditure: Up to, and including 1967-68, cash payments for 'Non-capital Works' and 'Capital Works' were made from the Commonwealth Consolidated Revenue Fund. From 1968-69, cash expenditures were made from the Post Office Trust Account. Interest and superannuation liability are not brought to account in this table.

Postmaster-General's Department: Financial Operations in Tasmania, 1971-72

Cash Receipts (a)		Cash Expenditure (b)	
Particulars	\$'000	Particulars	\$'000
Postal	4,861	Salaries and Wages	16,496
Telephone	14,919	Material	5,093
Telegraph	456	Carriage of Mails by Contractors	336
Proceeds of Sales	326	Buildings, Sites and Properties	1,252
Recoverable Works	666	Accommodation Services	631
International Services	84	Other (c)	1,315
Total	21,312	Total	25,123

(a) Excludes revenue earned but not actually received.

(b) Excludes expenditure incurred but not actually paid.

(c) Includes travelling allowances, repairs to plant, engineering works and hire of vehicles.

Operations of the Department

Apart from its obvious role of providing communication facilities through various media, the Department provides a money order and postal order service and also acts as an agent for a number of other instrumentalities in transactions which include: savings banks deposits and withdrawals; payment of pensions and allowances; War Service Homes repayments; sale of State duty stamps, etc.

Money Orders: An order may be obtained for sums up to \$80 on a single order. Orders for overseas are limited to \$50, and a remitter may send only one such order in any week.

Postal Orders: A system of *postal orders* replaced a system of *postal notes* from 1 June 1966. Postal Orders provide security since they can be traced and may also be 'crossed' like a bank cheque. The highest denomination is \$10.

Postal Services

The following table shows the volume of mail handled and the monetary transactions carried out through use of the Post Office in Tasmania:

Postal Services

Particulars	Unit	1967-68	1968-69	1969-70	1970-71	1971-72
Post Offices—Official ..	no.	56	53	52	50	46
Non-official ..	no.	389	344	322	307	288
Postal Traffic (a)—						
Letters, Postcards, etc.	'000	55,273	56,516	58,824	57,916	54,780
Newspapers, Books, etc.	'000	10,141	9,425	8,953	8,640	6,773
Parcels	'000	303	282	300	353	352
Registered Articles ..	'000	349	325	312	313	268
Money Orders—						
Issued—No.	'000	322	(b) 271	265	214	166
Value	\$'000	13,468	(b) 5,870	5,229	4,624	4,335
Paid—No.	'000	266	(b) 216	211	167	128
Value	\$'000	12,727	(b) 5,220	4,516	4,257	3,721
Postal Orders—						
Issued—No.	'000	350	378	428	496	498
Value	\$'000	599	731	871	1,295	1,514
Paid—No.	'000	201	212	223	276	263
Value	\$'000	351	448	512	784	942

(a) Number of separate articles handled.

(b) Prior to 1968-69 figures included official money orders used in bringing to account telephone account collections and War Service Homes Repayments. This practice was discontinued towards the end of 1967-68.

Telephone and Telegraph Services

The next table shows the usage of telephone and telegraph services in Tasmania:

Telecommunications

Particulars	Unit	1967-68	1968-69	1969-70	1970-71	1971-72
Telephone—						
Automatic Service Subscribers ..	'000	57	60	66	72	76
Manual Service Subscribers ..	'000	10	10	8	6	5
Subscribers with Access to S.T.D. ..	'000	39	43	52	60	70
Automatic Exchanges ..	no.	148	153	161	167	178
Manual Exchanges ..	no.	164	135	112	90	60
Value of Calls Made—						
Metered (Local and S.T.D.) ..	\$'000	5,441	3,643	4,667	5,621	6,592
Trunk ..	\$'000		2,511	2,497	2,503	2,477
Public Telephone (Local and Trunk)	\$'000		418	448	465	484
Telegraph—						
Phonograms Lodged ..	'000	340	311	295	r 266	231
All Telegrams Lodged (a) ..	'000	596	582	566	534	494

(a) Includes telegrams lodged by telephone (i.e. phonograms).

Telephones: The following table further analyses the telephone services in Tasmania, showing the dissection between *business* and *residential*:

Telephone Services at 30 June: Operating Services
(^{'000})

Particulars	1967	1968	1969	1970	1971	1972
Services in Operation—						
Business ..	32.4	32.4	33.3	35.8	36.5	37.3
Residential ..	31.3	33.4	35.6	37.8	41.3	43.2
Public Telephones ..	1.1	1.2	1.1	1.1	1.1	1.1
Instruments in Operation ..	88.9	93.0	98.3	104.8	r 108.5	112.6

RADIO COMMUNICATION

Stations in Tasmania

The section that follows relates to radio communication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are specifically excluded and are dealt with in a subsequent section.

Number of Authorised Radio Communication Stations at 30 June
(Two-way Services)

Particulars	1967	1968	1969	1970	1971	1972
Fixed Stations (a)—						
Aeronautical ..	8	8	8	8	7	7
Outpost (b) ..	19	19	17	16	17	17
Other ..	62	57	61	89	108	93
Total ..	89	84	86	113	132	117
Land Stations (c)—						
Aeronautical ..	7	7	7	8	8	8
Base Stations for—						
Land Mobile Services ..	303	319	350	401	453	473
Harbour Mobile Services ..	13	13	14	16	13	8
Coast (d) ..	22	24	29	29	27	32
Special Experimental ..	17	17	17	17	16	18
Total ..	362	380	417	471	517	539

Number of Authorised Radio Communication Stations at 30 June
(Two-way Services)—*continued*

Particulars	1967	1968	1969	1970	1971	1972
Mobile Stations—						
Aeronautical	26	26	32	38	47	42
Land Mobile Services	2,385	2,588	2,985	3,489	3,867	4,201
Harbour Mobile Services	68	75	65	72	78	70
Outpost	67	66	71	60	58	72
Ships	370	415	483	507	569	625
Total	2,916	3,170	3,636	4,166	4,619	5,010
Amateur Stations	194	222	238	244	231	229
Grand Total	3,561	3,856	4,377	4,994	5,499	5,895

(a) For exchange of radio messages with other similar stations.

(b) Stations established in remote localities for communication with control stations, e.g. the lighthouse service.

(c) For exchange of radio messages with mobile stations.

(d) Land stations for communication with ocean-going vessels.

To operate a radio transmitter as previously described, it is necessary to obtain a licence from the Postmaster-General's Department which is responsible for frequency allocation and for certain inspectorial functions. In the previous table, the term 'authorised' refers to equipment licensed by this authority.

Some examples of the use to which this form of communication is put, include: (i) the police networks for intrastate signals and for link with police cars; (ii) coastal radio service to ships at sea (the same service provides links with outpost transmitters in the State's remote areas, e.g. Port Davey); (iii) army network with direct link to Melbourne; (iv) fire brigade network operating in the area controlled by each authority; (v) fishermen's network with base stations at Triabunna, Dunally, Bicheno, St Helens, Lady Barron, Currie, Stanley and Strahan; (vi) lighthouse network (the source of weather reports at remote coastal stations); (vii) special purpose networks of various authorities, e.g. Hydro-Electric Commission, Forestry Commission, ambulance services, etc.; (viii) marine boards' V.H.F. networks (on single international frequency) for ship-to-shore link with overseas vessels; (ix) the the mutton birders' network—operating from Whitemark on Flinders Island when the birders, in the season, inhabit the otherwise deserted Bass Strait islands; (x) mine networks, e.g. central control linked to outposts engaged in blasting; and (xi) freighting services and taxi networks, etc.

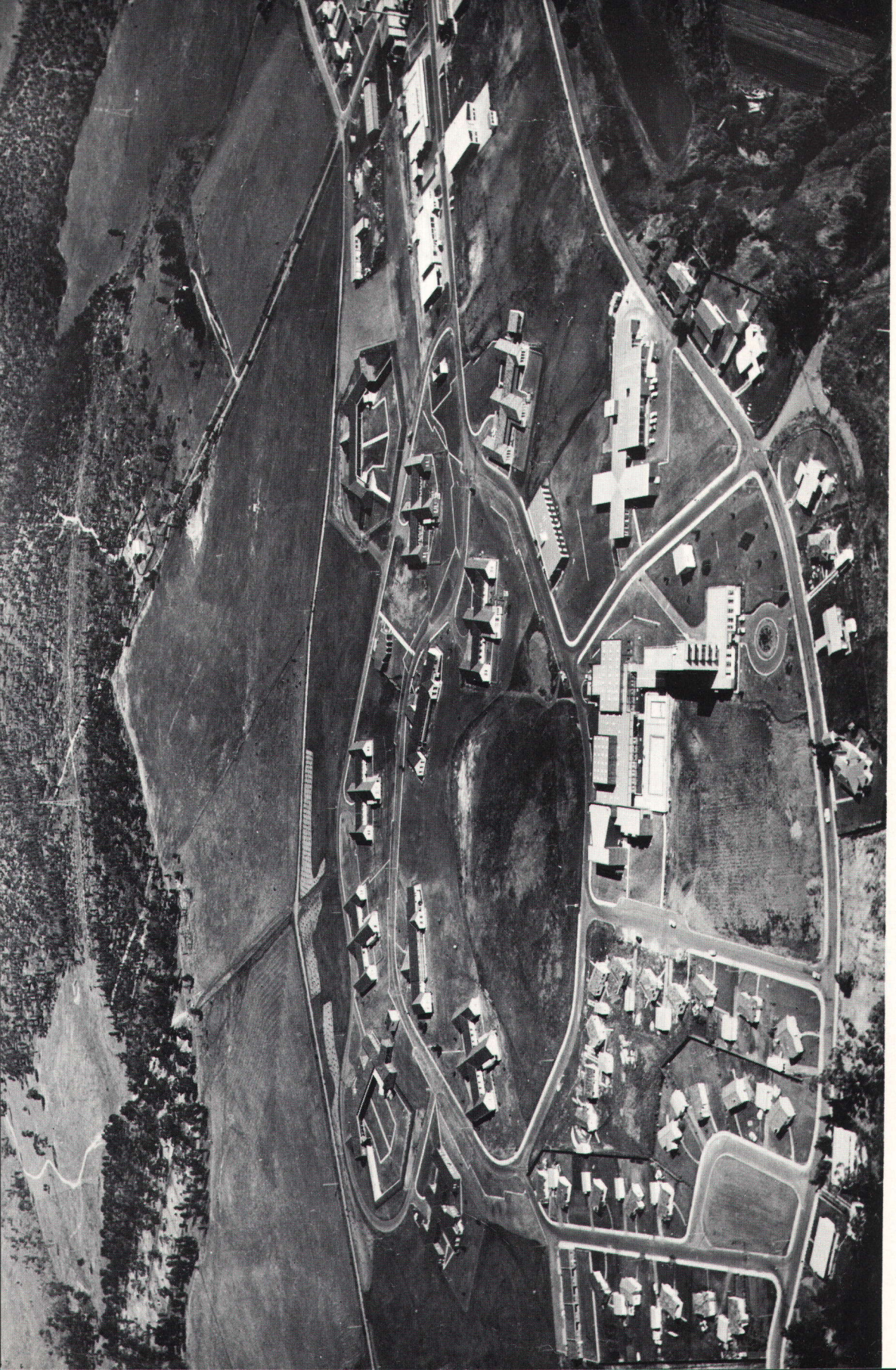
RADIO AND TELEVISION BROADCASTING

General

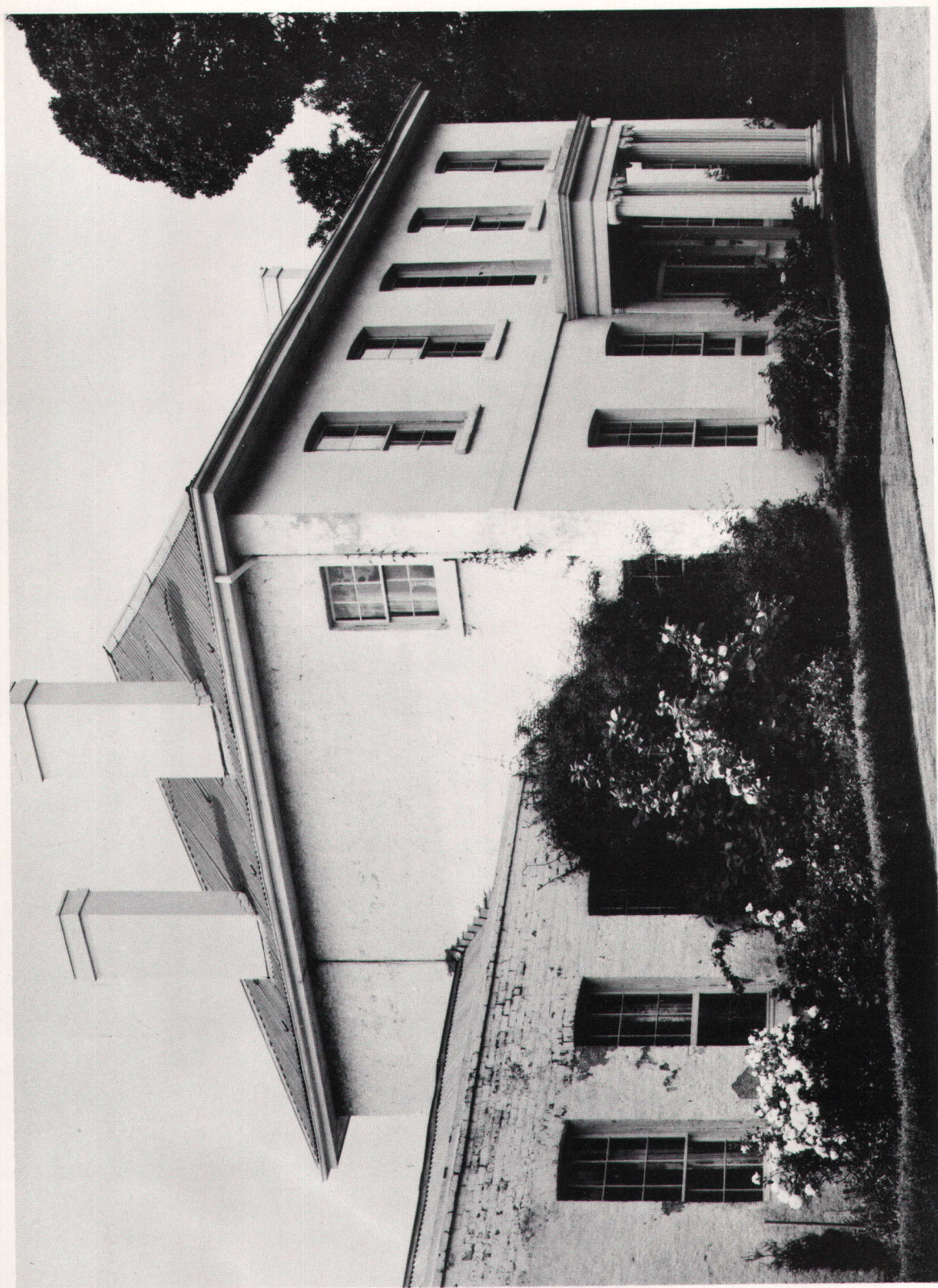
In Australia radio and television services are provided both from commercial and Commonwealth Government transmitters; the *Federal Broadcasting and Television Act 1942-73* governs the operation of services designated to the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service and the Commercial Television Service.

The National Services

The national services (both radio and television) are provided by the Australian Broadcasting Commission which has sole responsibility for programme material; the actual transmitters are operated by the Postmaster-General's Department. Owners of radio and television receivers are required to pay annual licence fees to the Postmaster-General's Department, and this revenue is used to help pay the cost of operating the national services.



*Aerial view of Royal Derwent Hospital complex, New Norfolk**



Franklin House, Laureston

The Commercial Services

The commercial services (both radio and television) are operated under licences granted by the Minister for the Media, who, in exercising his licensing powers, takes into consideration recommendations made by the Australian Broadcasting Control Board. The revenue of the commercial services is obtained from advertising. Licence fees, payable to the Australian Broadcasting Control Board, are charged on a sliding scale from one per cent to four per cent of gross advertising revenue.

The Australian Broadcasting Control Board

Although the commercial services are operated as private enterprise undertakings, the Board exercises control in certain fields, by prescribing programme standards, laying down rules for advertising time and advertising content, determining hours of operation, and by establishing and supervising operational standards. The Board allocates frequencies for transmission and investigates applications for the establishment of stations. In all these functions, it works under the jurisdiction of the Minister for the Media.

Hours of Transmission

At 30 June 1973, eight commercial radio stations were operating in Tasmania; two in the Hobart area each averaging 168 hours weekly; six elsewhere in the State averaging 119 hours weekly. The corresponding figures for the two commercial television stations were 76 hours weekly in the Hobart area, and 69 hours in the Launceston area.

Programme Standards—Commercial Stations

Broadcasting Standards

Licensees are required to provide programmes in accordance with standards determined by the Australian Broadcasting Control Board. These standards contain requirements for the acceptability of programme material and advertising. There are special provisions dealing with family and children's programmes designed to ensure that all programmes broadcast at times when large numbers of children and young persons are likely to be listening will be suitable for this category of listener. Special provisions relate to the duration and suitability of advertisements; with regard to their duration the standards require for example, that advertisements in a sponsored programme should not exceed 20 per cent of the programme time and that in the case of programmes during which spot advertisements are broadcast, advertisements should not exceed 30 per cent of programme time. Not more than 18 minutes of spot advertising may be included in any period of 60 minutes.

Also under the *Broadcasting and Television Act 1942-73*, licensees are required to broadcast religious services, or other matter of a religious nature during such periods as the Board determines. The minimum time set by the Board is one hour per week but many stations are providing, free of charge, considerably more time than required for religious broadcasts.

Television Standards

The Board has prescribed programme standards for commercial television, and these, as in the case of radio, contain requirements for the acceptability of programme material and advertising. The standards contain special provisions designed to protect the interests of children and young persons with respect to televising of material prior to 7.30 p.m. on any day during periods when there are likely to be large numbers of this category of the population viewing. The advertising standards relate to the suitability, number, content and duration of advertisements; with regard to their duration, the standards make the distinction between prime time (7.00 p.m. to 10.00 p.m.) and non-prime time. Broadly, advertisements should not occupy more than 11 minutes in each clock hour in prime time and not more than 13 minutes in each clock hour in non-prime time.

Australian Content

Section 114 of the Broadcasting and Television Act provides that commercial stations shall as far as possible employ the services of Australians in the production and presentation of programmes. It also provides that not less than five per cent of the time occupied by music on radio stations shall be devoted to works of Australian composers.

Australian programmes amount to 51.0 per cent of metropolitan radio stations' programmes and 50.4 per cent of country radio stations' programmes, and on average just over nine per cent of radio music consists of works of Australian composers. Since July 1973, an additional requirement has applied to radio stations. This calls for at least 10 per cent of music time to be occupied by performances (as distinct from compositions) by Australians.

Requirements for Australian content of television programmes have been applied on a rising scale since 1960. Until 1973 these called for a specified proportion of programmes to be of Australian origin, particularly during popular viewing times, and included additional quotas for drama and programmes for school-age children.

In August 1973, the Board introduced a revised system of requirements designed to encourage a better balanced service by giving incentive to the production and presentation of more Australian material in a wide variety of programme categories. Essentially the revised system is based on programmes in differing categories being awarded differing point scores with the highest point ratings being awarded to those categories which are most in need of encouragement. These include drama, quality variety, current affairs, documentaries and programmes dealing with the arts and education. Stations are required to meet a total points target equal to their transmission time in hours. The new system still retains the specific quotas for drama and childrens' programmes.

Category of Television Programmes

The following table shows, as varying proportions of transmission time, the types of programme televised in the Hobart area. The figures are based on a 50 per cent sampling of programmes.

Category of Television Programmes: Hobart 1972-73
Proportion of Transmission Time
 (Source: Australian Broadcasting Control Board)

Programme Category								Commercial Programmes	National Programmes
								per cent	per cent
Cinema Movies	..	..	..	..	..	..	..	19.8	4.3
Other Drama	..	..	..	..	..	..	..	33.0	17.3
Light Entertainment	..	..	..	..	..	..	..	14.6	8.6
Sport	..	..	..	..	..	..	..	11.1	12.0
News	..	..	..	..	..	..	..	6.0	6.8
Children	..	..	..	..	..	..	..	6.3	19.0
Family Activities	..	..	..	..	..	..	..	2.2	0.8
Information	..	..	..	..	..	..	..	1.9	4.1
Current Affairs	..	..	..	..	..	..	..	2.9	8.7
Election Matter	..	..	..	..	..	..	..	0.3	0.3
Religious Matter	..	..	..	..	..	..	..	1.9	1.6
The Arts	..	..	..	..	..	..	..	..	1.0
Education	..	..	..	..	..	..	..	..	15.4
Total	..	..	..	..	..	..	..	100.0	100.0

Film Classification

Films imported for televising are classified as suitable for unrestricted viewing (G), not suitable for children (A) and suitable for adults only (AO). Classifications for (A) and (AO) films are advertised before showing.

Television Stations in Operation

The next table gives details of the television stations in operation:

Television Stations in Operation, 30 June 1973

Call Sign and Channel	Area	Transmitter Location	Height Above Sea Level—Top of Aerial (Ft)	Hours of Service (Weekly)
NATIONAL				
ABT 2	Hobart	Mt Wellington	4,410	88.30
ABNT 3 (a)	NE. Tasmania	Mt Barrow	4,780	88.30
ABKT 2 (a)	King Island	Gentle Annie Hill	804	88.30
COMMERCIAL				
TVT 6	Hobart	Mt Wellington	4,340	76.30
TNT 9	NE. Tasmania	Mt Barrow	4,654	68.45

(a) Transmits programmes originating from ABT2.

Relay of Television Programmes from Other States

Tasmania is linked with Victoria by a broadband radio link installed by the Postmaster-General's Department which enables the direct relay of television programmes from the mainland States.

Microwave Links and Intrastate Relays

The prime sources of programmes in Hobart are the commercial and national studios which are linked to their Mt Wellington transmitters (TVT6 and ABT2) by micro-wave links; the commercial studio in Launceston feeds programmes to its Mt Barrow transmitter (TNT9) by the same method. As there is no national studio at Launceston, the transmitter on Mt Barrow (ABNT3) relays the Hobart national programmes through the broadband radio link. This service is also available to commercial stations.

Television Translator Stations

Tasmania, due to its terrain, has areas where television reception direct from the Mt Wellington or Mt Barrow transmitters is either difficult or impossible. To provide good reception in such areas, translator stations, which are low-powered stations receiving signals from a parent station and re-transmitting on another channel to areas with poor reception, have been installed as follows:

Television Translator Stations in Operation at 30 June 1973

Area Served	Parent Station		Local Channel	
	National	Commercial	National	Commercial
Queenstown-Zeehan	ABT2	TVT6	4	8
Rosebery-Renison Bell	ABT2	TVT6	1	10
Taroona .. .. .	..	TVT6	..	8
Swansea-Bicheno .. .. .	..	TVT6	..	8
Smithton-Stanley	ABNT3	TNT9	1	6
Gowrie Park	ABNT3	TNT9	11	1
South Launceston	ABNT3	TNT9	1	11
St Marys-Fingal Valley	ABNT3	TNT9	1	11
Maydena .. .. .	..	TVT6	..	8
Waratah	ABNT3	TNT9	2	10
Savage River-Luina	ABNT3	TNT9	4	7
Strahan	ABT2	..	10	..
Strathgordon	ABT2	TVT6	5	8
Derby .. .. .	..	TNT9	..	11

De-icing

In view of the temperature and weather conditions existing at Mt Wellington and Mt Barrow, precautions have been necessary to prevent the formation of ice on the aerial elements and the resultant danger of damage from falling ice.

In the case of the aerial at the Hobart national station (ABT₂, Mt Wellington), the aerial elements are heated by mains power which is switched on automatically by means of a thermostat when the temperature falls below freezing point. In the case of the Hobart commercial station (TVT₆, Mt Wellington), the junctions between the coaxial feeder lines and the aerial elements are protected by small plastic covers. In the case of the Launceston (Mt Barrow) commercial station TNT₉ and national station ABNT₃, the whole of the aeriels are covered by a plastic cylinder. The lower part of the ABNT₃ mast is metal-sheathed for 190 feet to ward off ice which falls from the plastic cylinder and which could damage the mast.

Radio Stations In Operation

The following table gives details of the radio stations in operation:

Radio Stations in Operation at 30 June 1973

Call Sign	Classification	Location	Hours of Service (Weekly)
7ZL	National	Hobart	126.00
7ZR	National	Hobart	126.00
7NT (a)	National	Launceston	126.00
7QN (a)	National	Queenstown	126.00
7HO	Commercial	Hobart	168.00
7HT	Commercial	Hobart	168.00
7AD	Commercial	Devonport	116.30
7BU	Commercial	Burnie	113.30
7EX	Commercial	Launceston	151.00
7LA	Commercial	Launceston	134.30
7QT	Commercial	Queenstown	98.30
7SD	Commercial	Scottsdale	100.30

(a) Transmits, in the main, programmes originating from 7ZL and 7ZR.

Although there are areas of poor reception due to difficult terrain, most of Tasmania receives a satisfactory radio service from one or more of the above stations. In addition, the northern part of the State receives a service from some mainland stations.

The structure and population distribution in the State has given rise to a regional pattern of radio stations with concentrations in Hobart and Launceston and outlying stations in the north-east, north-west and west.

Listening and Viewing Licences*Revenue from Licences*

The revenue from licences in force in Tasmania for the past decade is shown in the following table. From 1 April 1965 three types of licences: listeners'; viewers'; and combined were issued. The revenue from each type of licence is not available separately after 1963-64.

Broadcast and Television Licences: Revenue
(\\$'000)

Year	Type of Licence (a)		Total Revenue
	Listeners'	Viewers'	
1963-64	356	510	865
1964-65	1,005		1,005
1965-66	1,047		1,047
1966-67	1,127		1,127
1967-68	1,157		1,157
1968-69	1,314		1,314
1969-70	1,397		1,397
1970-71	1,429		1,429
1971-72	1,670		1,670
1972-73	1,871		1,871

(a) From 1964-65 no break-up is available.

Details of Rates

In general, all persons owning a radio or television set (or both) are required to pay an annual licence fee. Definitions used in the table follow.

Pensioner Rates: Concession rates apply to certain classes of pensioners and licences may be granted free of charge to blind persons over 16 years of age. The rates applicable are: Broadcast Receiver, \$1.00; Television Receiver, \$3.00; Combined, \$4.00.

Hirers' Licence: Each broadcast or television receiver let out on hire, except those under hire purchase contracts, must be covered by a hirer's licence held by the person or firm from whom the receiver is hired. Rates: Broadcast Receiver, \$8.00 (Pensioner rate \$1.00); Television Receiver, \$19.00 (Pensioners \$3.00); Combined, \$26.50.

Lodging House Licence: Owners of hotels, motels, guest houses, furnished premises, etc. are required to hold a licence for every broadcast or television receiver provided for the use of guests, lodgers and tenants. Rates: Broadcast Receiver, \$8.00; Television Receiver, \$19.00.

Licences in Force:

The following table shows the number of listeners' and viewers' licences in force in Tasmania from 1925:

Licences in Force (a): Listeners' and Viewers' Licences from 1925

At 30 June	Broadcast Listeners'	Television Viewers'	Combined (a)
1925	567	..	..
1930	6,048	..	..
1940	42,191	..	..
1950	64,369	..	..
1960	78,900	4,662	..
1965	62,943	47,173	12,906
1966	32,317	10,309	55,778
1967	21,917	10,708	60,405
1968	14,179	11,532	63,049
1969	12,232	11,896	66,320
1970	10,074	12,317	68,439
1971	8,883	12,752	70,534
1972	7,483	12,996	69,613
1973	8,344	13,205	72,785

(a) The combined receiving licence was introduced in April 1965, to be held by those persons owning both a radio and a television receiver at the same address. Separate licences are still available for persons owning only one type of receiver.

Licences and Receivers

The number of receivers in use, both for radio and television exceeds the number of licences, since one licence covers any number of receivers operated by the householder or members of his family at the address shown on the licence. (This concession does not apply to lodging houses.)

Although television transmission did not begin in Tasmania before the first half of 1960 (with ABT2 and TVT6 in Hobart), a few licences were held in the northern areas of the State as early as 1957; the owners of these receivers were able to tune to programmes originating in Victoria.

Zones

The rates for broadcast listeners' licences quoted in a previous table are those applicable to Zone 1 which includes areas within 250 miles of specified broadcasting stations. Zone 2 is defined as the remainder of Australia and persons living in this zone can obtain broadcast listeners' licences at a reduced rate. All Tasmanians live in Zone 1.

Chapter 12

PRIVATE FINANCE

BANKING AND EXCHANGE RATES

Types of Banks

General

Banks in Tasmania can be classified by ownership as follows: (i) Government—The Reserve Bank of Australia, the Commonwealth Development Bank of Australia, the Commonwealth Trading Bank of Australia and the Commonwealth Savings Bank; (ii) Private—the private trading banks and the private savings banks; and (iii) Trustee—The Savings Bank of Tasmania (previously the Hobart Savings Bank) and the Launceston Bank for Savings. The Agricultural Bank is *not* a bank for the purpose of these statistics.

For statistical purposes such a classification is not helpful since banks, both government and private, may be engaged in the same type of activity. Hence, the classification in actual use is one which groups banks according to their type of activity, not according to their ownership. The major banking statistics for the State are presented in two distinct series under the headings 'Trading Banks' and 'Savings Banks'.

Trading Banks

The following seven institutions in Tasmania are classified, for statistical purposes, as 'trading banks': Commonwealth Trading Bank of Australia; Australia and New Zealand Banking Group; Bank of New South Wales; Commercial Bank of Australia Ltd; Commercial Banking Company of Sydney Ltd; National Bank of Australasia Ltd; and The Bank of Adelaide.

Savings Banks

In the 1950s, only three savings banks operated branches in Tasmania: Hobart Savings Bank (now The Savings Bank of Tasmania), Launceston Bank for Savings (both trustee savings banks) and the Commonwealth Savings Bank. The trustee savings banks date from early colonial days, the one at Launceston opening in 1835, and at Hobart in 1845. In recent years, private trading banks have opened savings bank subsidiaries in the State, the current list of such banks being: Australia and New Zealand Savings Bank Ltd, Bank of Adelaide Savings Bank Ltd, Bank of New South Wales Savings Bank Ltd, Commercial Savings Bank of Australia Ltd, C.B.C. Savings Bank Ltd and the National Bank Savings Bank Ltd.

Savings banks also offer cheque facilities to customers; however, for statistical purposes their cheque operations are included in 'savings banks statistics'.

Banking Legislation

Under Section 51 of the Commonwealth Constitution, the Commonwealth Parliament has power to legislate with respect to 'banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'. The principal Commonwealth Acts at present in force relating to banking are:

The Reserve Bank Act 1959-1967

Provision for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue is covered by this Act. (Central banking functions had previously been vested in the Commonwealth Bank of Australia.)

The Banking Act 1959-1967

Objectives of the Act are: (i) to provide a uniform legal framework throughout Australia for regulating the banking system; (ii) to safeguard depositors of the banks from loss; (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (iv) to control the volume of credit in circulation and bank interest rates; and (v) to mobilise and to provide machinery for the control of foreign exchange and the gold resources of the Australian economy.

The Commonwealth Banks Act 1959-1968

This Act created the Commonwealth Banking Corporation as the controlling body for the newly-constituted Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia and Commonwealth Development Bank of Australia. The Corporation and its constituent banks are subject to the same banking controls as are the private trading banks. (The Commonwealth Bank, established in 1911, had performed a number of diverse roles, e.g. as a trading bank, a savings bank and a central bank. The effect of the legislation was to isolate the individual functions and to create a special organisation for each.)

Transactions of Trading Banks

The accompanying table summarises the principal statistics relating to all trading banks in Tasmania for a five-year period. The following definitions apply:

- (i) Deposits—a bank liabilities item. The figure is the average, for the year, of *balances* read at weekly intervals.
- (ii) Loans, Advances and Bills Discounted, etc.—a bank assets item. The figure is the average, for the year, of *balances* read at weekly intervals.
- (iii) Debits to Customers' Accounts—mainly the total of all cheques drawn by customers during a given period. The figure is the average, for the year, of such weekly entries.

**Transactions: All Trading Banks
(Including Commonwealth Trading Bank)**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
NUMBER					
Branches Open (a)	105	105	107	107	104
WEEKLY AVERAGES (\$'000)					
Deposits—					
Commonwealth and State Governments	1,953	2,502	1,685	6,465	1,210
Other—					
Fixed	42,096	46,585	51,444	50,525	54,940
Current—Bearing Interest	7,788	8,018	8,094	6,816	7,273
Not Bearing Interest	65,975	67,369	70,277	69,782	71,676
Total	117,811	124,473	131,501	133,587	135,099
Loans, Advances and Bills Discounted (b)	69,297	72,394	77,603	86,976	88,098
Debits to Customers' Accounts (c) ..	51,295	55,896	61,173	64,177	69,970

(a) At end of year.

(b) Excludes loans to authorised dealers in the short-term money market.

(c) Excludes debits to Commonwealth and State Government accounts at Hobart branches. In addition to trading bank transactions, those of the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank are included in this item.

The next table gives a classification of trading bank advances outstanding within Tasmania by type of borrower resident in Australia:

Trading Banks: Classification of Advances Outstanding Within Tasmania to Borrowers Resident Within Australia
(\$'000)

Type of Advance	At Second Wednesday in July		
	1970	1971	1972
BUSINESS ADVANCES BY MAIN INDUSTRY OF BORROWER			
Agriculture, Grazing and Dairying—			
Mainly—Sheep Grazing	7,982	8,335	7,791
Wheat Growing	3	41	8
Dairying and Pig Raising	4,892	4,580	4,787
Other	7,851	8,169	8,982
Total	20,728	21,125	21,568
Manufacturing	19,966	20,851	21,983
Transport, Storage and Communication	1,517	1,754	2,662
Finance—			
Building and Housing Societies	1,386	250	199
Pastoral and Finance Companies	2,839	1,864	285
Hire Purchase and Other Finance Companies	642	470	512
Other	620	726	515
Total	5,487	3,310	1,511
Retail and Wholesale Trade	14,118	15,006	15,673
Building and Construction	2,226	2,414	2,821
Other Business	8,243	9,754	13,359
Unclassified	570	504	741
Total Business Advances	72,855	74,718	80,318
ADVANCES TO PUBLIC AUTHORITIES			
Public Authorities (excl. Commonwealth and State Governments)	382	315	127
PERSONAL ADVANCES BY PURPOSE OF ADVANCE			
Building or Purchasing Own Home (Individuals)	4,520	4,424	4,961
All Other	8,904	8,243	10,042
Total Personal Advances	13,424	12,667	15,003
ADVANCES TO NON-PROFIT ORGANISATIONS			
Non-profit Organisations	1,052	1,022	892
TOTAL ADVANCES TO RESIDENT BORROWERS			
Total Advances to Resident Borrowers	87,713	88,722	96,340

Interest Rates and Security Yields

The next table shows the interest rates available on fixed deposits, the interest yield from treasury notes and the yield from government securities:

Interest Rates and Security Yields
(Per Cent Per Annum)

Particulars	Rate		
	June 1971	June 1972	June 1973
Trading Banks (maximum rate)—			
Fixed Deposits (less than \$50,000)—			
3 months and less than 12 months	5.00	4.30	4.30
12 months and less than 18 months	5.00	..	..
12 months and less than 2 years .. ..	..	4.50	4.50
18 months to 2 years .. ..	..	..	..
Over 2 years and less than 3 years	5.60	..	..
2 years and less than 4 years .. ..	..	5.00	5.00
3 years and less than 4 years	6.00	..	..
4 years	6.50	5.50	5.50
Fixed Deposits (\$50,000 and Over)—			
30 days to 2 years	5.50	..	..
30 days to 4 years .. ..	..	(a) 6.50	(a) 6.50
Over 2 years and less than 4 years	6.00	..	..
4 years	6.50	..	..
Commonwealth Government Securities Yield—			
Non-rebateable Bonds— 2 years	6.30	5.05	6.04
10 years	6.83	5.85	6.72
20 years	6.99	5.99	6.99
Treasury Notes (Issue Yield)—			
13 Week Notes	5.37	4.50	4.91
26 Week Notes	5.57	4.66	5.10

(a) Actual rates are a matter for negotiation between the bank and customer.

Savings Banks

Transactions

The following table summarises the principal statistics relating to savings banks in Tasmania. Deposits are compiled on a basis different from that used in the case of trading banks. 'Deposits lodged' is the total inflow of deposits during the year, and 'depositors' balances' is a single liability reading taken at the end of the year.

Transactions: All Savings Banks

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	no.	no.	no.	no.	no.
Branches Open (a)	151	151	152	153	151
Operative Accounts (a)	432,112	452,280	465,888	485,629	506,642
	\$'000	\$'000	\$'000	\$'000	\$'000
Deposits Lodged	203,850	217,531	244,416	285,190	333,667
Interest Added	5,857	6,529	7,087	7,625	9,406
Excess of Deposits over Withdrawals	4,864	5,687	2,660	10,247	15,787
Depositors' Balances (a)	177,827	190,043	199,790	217,663	242,856
	\$	\$	\$	\$	\$
Per Head of Population—					
Depositors' Balances (a)	r468	r494	r515	r558	619

(a) At end of year.

The next table gives details of housing finance transactions by savings banks in Tasmania. Figures for this activity are not available prior to 1969-70.

Savings Banks: Housing Finance Transactions

Period	Loans Approved to Individuals For—					Total All Loans Approved	Loans Cancelled (a)	
	Dwellings not Previously Occupied		Dwellings Previously Occupied		Alterations and Additions			
	Number (b)	Amount	Number (b)	Amount	Amount	Amount	Number	Amount
		\$'000		\$'000	\$'000	\$'000		\$'000
1969-70 ..	444	3,357	865	5,542	289	9,188	78	524
1970-71 ..	578	4,853	1,281	8,989	242	14,085	113	1,151
1971-72 ..	630	5,718	1,580	12,171	409	18,298	125	999
1972-73 ..	776	7,953	2,037	18,108	569	26,630	135	1,350

(a) Includes amounts cancelled as a result of periodic examination of undrawn commitments.

(b) Includes details of number of loans for dwelling units approved for first mortgage finance only. Second mortgage finance is included under 'Amount'.

At 30 June 1973, the balances outstanding on housing loans made by savings banks to individuals and to building societies were \$70,824,000 and \$2,007,000 respectively.

Savings Banks Interest Rates

The next table shows the maximum rates of interest received by depositors or charged to borrowers with home mortgages:

**The Savings Bank of Tasmania: Maximum Interest Rates (a)
(Per Cent Per Annum)**

Date of Change In Rate	On Savings Accounts (b)	On Home Mortgages	Date of Change In Rate	On Savings Accounts (b)	On Home Mortgages
August 1962 .. ..	..	6.00	August 1968	4.00	6.25
April 1963	3.25	..	May 1970	4.25	7.00
May 1963 .. ..	..	5.50	May 1971	5.00	7.00
June 1964	3.50	..	June 1972	(c) 4.50	7.00
April 1965	3.75	5.75	March 1973	(c) 4.00	7.00
June 1966 .. ..	..	6.00			

(a) Operative from first day in month shown.

(b) Interest on fixed deposits is as for trading banks.

(c) Effective on accounts to \$4,000. From \$4,001 to \$20,000 the interest rate was 5.0 per cent, from 1.6.72 to 28.2.73; and from 1.3.73 the interest rate is 4.75 per cent.

Overseas Exchange Rates

The next table shows average overseas exchange rates operative for recent periods:

Exchange Rates (a): Average for Period Shown, Overseas Currency Relative to Australian Dollar

Country	Unit of Overseas Currency	1969-70	1970-71	1971-72	1972-73
New Zealand (b)	Dollars	0.998	0.998	0.998	0.971
United Kingdom (b)	Pound Stg.	0.465	0.465	0.461	0.522
Belgium (c)	Francs	55.22	55.11	52.49	53.51
Canada	Dollars	1.19	1.13	1.17	1.27
China, People's Republic of (d)	New Yuan	2.72	2.72	2.71	2.74
France (c)	Francs	6.08	6.13	6.00	6.05
Germany, West	Deutsche Marks	4.16	4.02	3.80	3.85
Hong Kong	Dollars	6.74	6.74	6.67	6.94
India	Rupees	8.33	8.33	8.51	9.74
Italy (c)	Lire	696.00	694.00	696.00	828.00
Japan	Yen	396.96	397.36	368.29	363.49
Malaysia	Dollars	3.40	3.41	3.38	3.37
Netherlands	Guilders	4.02	3.99	3.84	3.92
Pakistan	Rupees	5.28	5.29	5.39	n.a.
Singapore	Dollars	3.40	3.41	3.33	3.38
South Africa	Rands	0.795	0.795	0.852	0.957
Sri Lanka (Ceylon)	Rupees	6.59	6.59	6.85	8.12
Switzerland	Francs	4.78	4.76	4.57	4.50
U.S.A.	Dollars	1.11	1.12	1.17	1.28
U.S.S.R. (d)	Roubles	1.004	1.006	0.989	1.016

(a) Average telegraphic transfer selling rates at Sydney.

(b) Usual basis of quotation: (i) \$A to \$N.Z. 1; (ii) \$A to £1 stg. Value quoted is an inversion.

(c) From 20.9.71 (Belgium, France) and from 1.2.73 (Italy) two rates became operative; the rate shown is the financial rate used for trade transactions.

(d) Rates of exchange used in converting import values to Australian currency for purposes of calculating customs duty.

INSURANCE

General

Definitions

The following data on insurance are divided into life insurance and insurance other than life, i.e. fire, marine and general insurance. No distinction is made between insurance and assurance, the former term being used in all contexts.

Legislation

Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to 'insurance other than State insurance; also State insurance extending beyond the limits of the State concerned'. The principal Commonwealth legislation affecting current insurance business is as follows:

Insurance Act 1932-1966: Insurance businesses are required to lodge a deposit with the Commonwealth Treasurer, interest on the invested deposit being paid to the depositor. Deposits remain as a security against liability to policy holders and are available to satisfy judgments obtained in respect of policies. The following insurance business is exempted from these provisions: staff superannuation schemes; schemes of religious organisations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees. Deposits with a State made prior to the legislation could remain with the State and reduce the amount needed for deposit with the Commonwealth. The passing of the *Life Insurance Act 1945-1965* had the effect of adding life insurance business to the list of activities exempted from the provisions of the *Insurance Act 1932-1966*.

Life Insurance Act 1945-1965: Objectives are: (i) to replace all State legislation on the subject of life insurance, except that relating to operations of a State insurance office within a specific State, and to provide uniform legislation for the whole of Australia; (ii) to appoint an Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection of policy holders; and (iii) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

Life Insurance

Since 1947 returns lodged under the *Life Insurance Act 1945-1965* have been used to compile life insurance statistics. In Tasmania, the Government Insurance Office does not transact life insurance business so the tables that follow refer to the operations of enterprises exclusively in the private sector. The transactions in the next table are concerned with Tasmania as the State of issue of the policies, not necessarily as the State of risk.

Life Insurance Transactions (Excluding Annuities)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
ORDINARY BUSINESS					
New Policies Issued—					
Number	14,974	15,597	17,052	17,952	19,016
Sum Insured \$'000	76,251	83,946	93,895	107,365	128,738
Annual Premiums \$'000	1,749	1,927	2,201	2,430	2,914
Policies Discontinued or Reduced—					
Number	9,409	9,584	11,145	11,354	12,429
Sum Insured \$'000	27,722	31,094	38,521	42,271	49,543
Annual Premiums \$'000	622	693	918	999	1,153
INDUSTRIAL BUSINESS (a)					
New Policies Issued—					
Number	3,190	3,090	3,536	3,642	3,709
Sum Insured \$'000	3,212	3,524	3,955	4,730	5,470
Annual Premiums \$'000	126	133	153	167	185
Policies Discontinued or Reduced—					
Number	4,662	4,448	4,423	4,295	5,091
Sum Insured \$'000	2,199	2,470	2,688	2,502	3,465
Annual Premiums \$'000	92	104	110	99	129
SUPERANNUATION BUSINESS					
New Policies Issued—					
Number	2,542	2,300	1,848	1,925	1,903
Sum Insured \$'000	28,599	24,714	26,726	35,400	38,011
Annual Premiums \$'000	909	727	813	1,069	1,205
Policies Discontinued or Reduced—					
Number	2,371	3,883	2,226	2,105	2,074
Sum Insured \$'000	10,778	14,738	14,496	18,131	17,080
Annual Premiums \$'000	332	455	412	562	515
TOTAL BUSINESS					
New Policies Issued—					
Number	20,706	20,987	22,436	23,519	24,628
Sum Insured \$'000	108,062	112,183	124,576	147,494	172,220
Annual Premiums \$'000	2,784	2,787	3,167	3,666	4,305
Policies Discontinued or Reduced—					
Number	16,442	17,915	17,794	17,754	19,594
Sum Insured \$'000	40,699	48,302	55,705	62,904	70,088
Annual Premiums \$'000	1,046	1,253	1,441	1,659	1,797

Life Insurance Transactions (Excluding Annuities)—*continued*

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
NEW LOANS PAID OVER (EXCLUDING ADVANCES OF PREMIUMS)					
On Mortgage of Real Estate .. \$'000	2,732	4,886	4,737	3,345	2,293
On Companies' Policies \$'000	1,274	1,631	1,764	2,004	2,211
On Other Securities \$'000	13	15	33	60	52
Total \$'000	4,019	6,531	6,534	5,408	4,555

(a) Industrial business refers, in the main, to policies on which the premiums are collected as regular instalments by agents on commission.

Fire, Marine and General Insurance

Information for insurance, other than life, is compiled from returns provided by insurance companies transacting fire, marine and general insurance business in Tasmania (including the Tasmanian Government Insurance Office). Statistics that follow are for financial years of companies ending within the period shown.

Definitions

Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year. When business is increasing, as shown in the following statistics, premiums receivable are greater than 'earned premium income' appropriate to the year. The converse applies when business is declining.

Claims include payments made during the year *plus* estimated amount of outstanding claims at end of year *less* estimated amount of outstanding claims at beginning of year.

Contributions to fire brigades, commission and agents' charges, and expenses of management are those amounts actually paid during the year.

Taxation represents payments made during the year, including income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The following table should not be construed as a Profit and Loss Statement; selected revenue and expenditure items only have been used. In cases where the business is underwritten in one State and the risk situated in another, the business is included in the State of issue.

Fire, Marine and General Insurance
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Premiums (less Returns, Rebates and Bonuses)	17,413	19,380	20,813	23,248	28,112
Interest, Dividends, Rents	385	434	457	487	639
Total Revenue	17,799	19,814	21,270	23,735	28,751
Claims (less Amounts Recoverable) ..	16,890	10,865	12,285	13,214	15,279
Contributions to Fire Brigades	298	(a) 508	521	583	(a) 815
Commission and Agents' Charges	1,863	2,063	2,118	2,388	2,696
Expenses of Management	3,497	3,929	4,407	4,942	5,856
Taxation	749	(b) 588	424	626	738
Total	23,297	17,953	19,757	21,753	25,384

(a) Contribution formula changed by law.

(b) Prior to 1968-69, stamp duty on insurance policies was paid by the issuing company. The decrease in taxation paid is due to companies requiring the policy holder to pay stamp duty.

Types of Insurance

The next table shows premiums and claims according to the class of insurance business transacted in 1971-72. ('Premiums' and 'Claims' have been compiled in accordance with the definitions introducing the section.)

Fire, Marine and General Insurance
Premiums and Claims for Each Type of Insurance, 1971-72
 (\$'000)

Class of Business	Premiums	Claims	Class of Business	Premiums	Claims
Fire	4,322	1,362	Public Risk, Third Party ..	553	142
Householders' Comprehensive ..	2,519	845	General Property	131	64
Sprinkler Leakage	10	..	Plate Glass	117	77
Loss of Profits	691	274	Boiler	97	91
Fruit Crop	28	67	Livestock	49	18
Marine	1,423	792	Burglary	326	171
Motor Vehicles (incl. Motor Cycles)	8,155	5,125	Guarantee	40	1
Compulsory Third Party (Road Accidents)	2,229	2,367	'Pluvius'	6	4
Workers' Compensation	5,559	3,093	Aviation	75	38
Personal Accident	1,078	377	All Risks	194	88
Contractors' All Risks	66	27	Television	33	5
			Other	410	254
			Total	28,112	15,279

Ratio of Claims to Gross Premiums: The following table shows the ratio of claims to premiums for the more important classes of business over a five-year period:

Fire, Marine and General Insurance
Ratio of Claims to Premiums (a)
 (Per Cent)

Class of Business	1967-68 (b)	1968-69	1969-70	1970-71	1971-72
Fire	194.7	30.7	46.0	45.8	31.5
Householders' Comprehensive	99.5	29.4	30.0	33.8	33.6
Loss of Profits	133.0	(c)	81.3	8.4	39.6
Marine	98.9	84.0	25.0	43.3	55.7
Motor Vehicles (including Motor Cycles)	68.7	68.7	67.1	64.0	62.8
Compulsory Third Party (Road Accidents)	102.4	108.8	109.2	116.4	106.2
Workers' Compensation	67.6	57.9	62.4	59.2	55.6
Personal Accident	49.5	50.2	41.0	39.8	35.0
Public Risk, Third Party	33.4	49.9	40.3	29.0	25.7
Plate Glass	61.9	68.2	64.5	72.3	65.8
Burglary	64.3	52.6	49.2	54.9	52.4
All Classes	97.0	56.1	59.0	56.8	54.4

(a) See beginning of section for definition of claims and premiums.

(b) The fire disaster of 7 February 1967 affected some ratios.

(c) No percentage because of negative claims figure due to adjustments made to offset over-estimation of claims outstanding in previous years.

INSTALMENT CREDIT AND OTHER FINANCING

Finance Companies

'Finance companies' for the purpose of these statistics are *incorporated companies* engaged mainly in providing business and the general public with credit facilities of the following types: hire purchase and other instalment credit for retail sales; personal loans; wholesale finance; factoring; commercial loans repayable at call or within 90 days; and other consumer and commercial loans.

Companies engaged in activities additional to financing still come within the scope of these statistics provided that the major portion of their assets consists of financial assets arising from activities of the types just listed, and/ or a major proportion of their income is derived from such assets. Companies are excluded if: (i) the major proportion of their balances outstanding consists of agreements written for the purpose of financing their own sales; or (ii) they are engaged mainly in financing, in any way, the operations of related companies.

Prior to July 1971 companies with balances outstanding, on an Australia wide basis, of less than \$100,000 were excluded from the collection. As from July 1971 the exclusion level was raised to less than \$500,000. On an Australia wide basis the newly excluded companies accounted for less than three per cent of the total balances outstanding. A further change, operative from July 1971, was in the method of reporting leasing agreements—prior to July 1971 the valuation specified for leased goods was based on initial capital cost; from July 1971 the basis of reporting is either gross receivables (i.e. expected future receipts from the leasing agreement) or capital cost of the leased item less depreciation.

Finance companies are not the sole operators providing instalment credit; there are also some *retail businesses* and *non-retail unincorporated businesses* doing the same. Accordingly this *Finance Companies* section is followed by another section devoted to *total instalment credit* statistics and covering all three types of businesses operating in this field.

Definitions

Instalment Credit for Retail Sales: This category covers all types of instalment credit schemes of finance companies which relate primarily to the financing of retail sales of goods. Instalment credit relates to repayment made by regular predetermined instalments and includes hire purchase, time payment, budget account and personal loan schemes. In these statistics the term 'retail sales' relates to sales principally to the final consumer of new and second-hand goods generally used for household and personal purposes (as in the Bureau's Censuses of Retail Establishments) and to the final purchaser for other purposes (e.g. plant and machinery and tractors). The amount financed in this category is classified according to the following types of commodities: (i) *motor vehicles, etc.:* motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc. (new and used compiled separately); (ii) *plant and machinery:* farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machinery and equipment (including commercial refrigeration equipment), etc.; and (iii) *household and personal goods:* furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, television sets, musical instruments, bicycles, motor mowers, clothing, etc.

Wholesale Finance: This category relates mainly to the financing of motor vehicle dealers' stocks held under bailment or floor plan schemes but also includes finance in respect of other trading stock.

Other Consumer and Commercial Loans: This term covers: (i) personal loans other than instalment credit for retail sales; (ii) mortgage loans; and (iii) commercial loans, i.e. all loans and advances to businesses not included elsewhere in these statistics.

Factoring: This term is used by finance companies in various senses, but in these statistics, relates to loans on the security of 'trade' debts and purchases of 'trade' debts. ('Trade' debts are those owing to businesses for goods or services supplied to other businesses.)

Amount Financed: Amount financed is the actual amount of cash provided. It excludes interest, insurance, hiring and other charges, and initial deposits. For purchases of existing finance agreements and trade debts purchased, it represents the amount of cash paid to the seller.

Balances Outstanding: Balances outstanding are the amounts owing on all finance agreements as shown in the books of the companies at the end of the relevant period. Accounting practice, with respect to inclusion in balances outstanding of unmatured charges, interest and insurance, differs between finance companies and between types of finance agreements. Because of this, details of balances outstanding are given separately for those contracts including, and those excluding, such charges.

Collections and Other Liquidations: Collections are cash collections of capital repayments, hiring charges, interest and insurance. Other liquidations are any reductions in balances outstanding other than by cash collections; they include bad debts written off and rebates for early payments.

Finance Companies: Collections and Other Liquidations, Balances Outstanding and Amount Financed by Type of Agreement, Revised Series (a)
(\$m)

Year	Instalment Credit for Retail Sales	Wholesale Finance	Other Consumer and Commercial Loans		Total All Contracts
			Contracts Including Charges (b)	Contracts Excluding Charges (c)	
COLLECTIONS AND OTHER LIQUIDATIONS OF BALANCES					
1967-68	29.6	23.9	2.1	0.8	56.5
1968-69	33.2	27.6	2.2	1.2	64.1
1969-70	36.3	29.0	2.4	1.4	69.0
1970-71	39.8	31.1	2.3	1.7	74.8
1971-72	42.9	34.7	1.8	2.8	82.3
BALANCES OUTSTANDING AT END OF YEAR					
1967-68	39.2	4.4	2.7	2.2	48.5
1968-69	40.6	4.2	3.0	2.8	50.5
1969-70	44.8	4.4	2.7	4.2	56.2
1970-71	49.2	4.7	2.5	5.1	61.5
1971-72	52.7	5.6	2.3	5.4	66.0
AMOUNT FINANCED					
1967-68	25.5	25.3	2.6		53.4
1968-69	26.1	27.4	2.5		57.0
1969-70	28.7	29.1	4.8		62.5
1970-71	32.3	31.0	3.9		67.2
1971-72	34.1	35.4	4.5		74.0

(a) See explanatory notes preceding table.

(b) Includes details of personal loans.

(c) Includes factoring.

The value of capital goods (business equipment and plant) leased by finance companies, over a five-year period, is shown in the table below:

Finance Companies: Business Equipment and Plant on Lease
(\$m)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72 (a)
Value of Goods Leased during Period ..	2.6	2.5	3.4	5.1	5.5
Balances Outstanding at end of Year ..	4.7	5.0	6.1	8.3	11.8

(a) Change in basis of reporting value of leased goods; see section preceding 'Definitions'.

In the following table the amount financed in respect of instalment credit for retail sales agreements (a single item in previous tables) is further classified by type of commodity.

Finance Companies: Instalment Credit for Retail Sales, Revised Series
Amount Financed, Collections and Other Liquidations, and Balances Outstanding
 (\$m)

Year	Amount Financed during Year					Collections and other Liquidations during Year			Balances Outstanding at End of Year
	Motor Vehicles, etc.		Plant and Machinery	Household and Personal Goods	Total	Cash Collections	Other Liquidations	Total	
	New	Used							
1967-68	9.5	10.8	2.8	2.5	25.5	28.8	0.8	29.6	39.2
1968-69	9.4	10.8	3.4	2.5	26.1	32.3	0.9	33.2	40.6
1969-70	9.3	12.3	3.6	3.5	28.7	35.1	1.1	36.3	44.8
1970-71	10.4	14.9	3.4	3.5	32.3	37.7	2.0	39.8	49.2
1971-72	10.7	16.9	3.0	3.6	34.1	41.1	1.9	42.9	52.7

Instalment Credit for Retail Sales in Tasmania

The collection of data on instalment credit transactions began as a series dealing simply with the hire purchase operations of non-retail finance businesses; it was then expanded to cover the hire purchase operations of retail businesses. The final stage was reached when a concept of instalment credit, considerably broader than just hire purchase, was introduced.

In the next table the *instalment credit for retail sales* transactions of finance companies are entered as part of those headed *non-retail finance businesses*; included under the same heading are the transactions of unincorporated businesses. The relation between the series in the previous section and this section can be established as follows: balances outstanding at 30 June 1972: (i) to *finance companies* \$52.7m; (ii) to *all non-retail finance businesses* \$54.5; and (iii) to *all businesses*, including retail businesses, \$61.6m.

Definitions

The statistics cover operations of all types of instalment credit schemes which relate primarily to the financing of retail sales of goods, whether the credit is advanced by a retail business or by a non-retail finance business. In general, the term 'instalment credit' is defined as relating to schemes in which repayment is made by regular predetermined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to financing of retail sales of goods. The term 'retail sales' relates not only to retail sales covered by the Censuses of Retail Establishments, but also includes other sales of goods to final purchasers (e.g. plant and machinery).

Figures for amounts financed *exclude* interest, hiring charges, insurance, etc. Figures for balances outstanding and collections *include* interest, hiring charges, insurance, etc. Details are not available of these charges or of other items (e.g. rebates allowed for early payment, late payment charges, bad debts written off) which affect the reconciliation of the three main instalment credit series: amount financed, collections and balances outstanding.

Statistics of amount financed are classified by type of goods, defined as follows: (i) *motor vehicles, etc.*—motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc.; (ii) *plant and machinery*—farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machinery and equipment, etc.; and (iii) *household and personal goods*—furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, televisions, musical instruments, bicycles, motor mowers, clothing, etc. The next table shows Tasmanian operations on an annual basis; monthly and quarterly series are also published.

Instalment Credit for Retail Sales, Revised Series (a)
(Hire Purchase and Other Instalment Credit)
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
FINANCED BY RETAIL BUSINESSES					
Amount Financed During Period (b)—					
Motor Vehicles, etc. (c)	430	821	925	1,215	1,117
Plant and Machinery	4,859	5,442	5,703	5,871	5,956
Household and Personal Goods					
Total All Goods	5,289	6,263	6,628	7,086	7,073
Balances Outstanding at End of Period (d)	6,457	6,826	7,317	7,293	7,097
FINANCED BY NON-RETAIL FINANCE BUSINESSES					
Amount Financed During Period (b)—					
Motor Vehicles, etc. (c)	21,307	21,001	22,353	25,485	28,240
Plant and Machinery	3,117	3,917	3,969	3,879	3,445
Household and Personal Goods	4,082	4,392	4,144	3,955	4,110
Total All Goods	28,506	29,310	30,466	33,322	35,795
Balances Outstanding at End of Period (d)	42,452	44,205	46,537	50,453	54,463
FINANCED BY ALL BUSINESSES					
Amount Financed During Period (b)—					
Motor Vehicles, etc. (c)—New	10,629	10,358	10,609	11,422	11,977
Used	11,108	11,464	12,669	15,278	17,380
Total Vehicles	21,737	21,822	23,278	26,700	29,357
Plant and Machinery	12,058	13,751	13,816	13,705	13,511
Household and Personal Goods					
Total All Goods	33,795	35,573	37,094	40,408	42,868
Balances Outstanding at End of Period (d)	48,909	51,031	53,854	57,746	61,560

(a) Includes time payment, budget account, and personal loan schemes relating primarily to the financing of retail sales.

(b) Excludes hiring charges, interest and insurance.

(c) Types of goods included are defined under 'Definitions' preceding the table.

(d) Includes hiring charges, interest and insurance.

OTHER PRIVATE FINANCE

Friendly Societies

Scope

The details that follow refer to 'ordinary' societies, not to 'special' societies. Ordinary societies are those which provide customary sick and funeral benefits and are subject to actuarial valuation. Special societies restrict their membership to employees of industrial parent organisations and are not subject to actuarial valuation.

Friendly Health Services (F.H.S.): This organisation was originally established to administer medical and hospital benefit funds to which members of existing societies could contribute; funds, membership and activities of this description are excluded from statistics of ordinary friendly society activities. F.H.S. later extended its scope to 'ordinary' society activities. Details of the latter only are included in friendly society statistics.

Membership

Friendly societies were a form of social organisation to help members meet the costs of sickness, burial, etc. at a time when government social services were either meagre or non-existent. Membership reached a maximum (over 22,000 in male lodges) in the pre-depression years but has since steadily declined. From the 1950s, there has been rapid development of various government-encouraged insurance schemes to assist families with hospital and other expenses associated with sickness; such schemes have evolved, in general, outside the framework of the friendly society movement.

With F.H.S. excluded from consideration, it was observed that: (i) decline in membership of other ordinary societies has continued (from 7,252 members in 1961 to 3,931 in 1971); (ii) the average age of members has continued to increase (from 36.7 years in 1920 to 65.0 years in 1971, 69 per cent of the members being aged more than 60 years).

In the following table male and female members of the F.H.S. Sickness and Assurance Fund and Whole of Life and Endowment Fund have been included.

Friendly Society Membership and Number Who Received Sick Pay, 1971

Particulars	Membership Details					Members Who Received Sick Pay
	Financial Members	Total Membership	Average Age of Members	Admissions	Departures	
	no.	no.	years	no.	no.	no.
All Societies (excluding Friendly Health Services)						
Male	3,803	3,857	65.0	..	235	594
Females	74	74	65.8	..	3	6
Total	3,877	3,931	65.0	..	238	600
Friendly Health Services ..	692	772	22.8	101	93	37
Total All Societies ..	4,569	4,703	58.1	101	331	637

The figures in the next table, which excludes details for F.H.S., show the decline in membership of other ordinary societies:

Societies, Lodges and Membership (a)
(Number)

Particulars	1966	1967	1968	1969	1970	1971
Societies	8	8	8	8	8	8
Lodges—Male	107	107	105	105	105	103
Female	6	6	6	6	6	6
Benefit Members ..	5,181	4,931	4,684	4,400	4,164	3,931
Financial Members ..	5,128	4,827	4,612	4,347	4,104	3,877

(a) Friendly Health Services excluded.

Revenue and Expenditure

The following table shows the net revenue and expenditure (excluding interfund transfers and transfers between districts and lodges) of friendly societies for the financial years which ended in 1971:

Friendly Societies (a): Net Revenue and Expenditure, 1971
(£)

Revenue			Expenditure		
Particulars	Total	Per Financial Member	Particulars	Total	Per Financial Member
Members' Contributions (b) ..	64,307	14.07	Medical Attendance and Medicine	1,666	0.36
Interest, Rent and Dividends..	83,293	18.23	Sick Pay	16,878	3.69
All other Income	25,076	5.49	Funeral Benefits	40,986	8.97
			Administration	44,365	9.71
			Endowment Benefits	7,783	1.70
			Other	17,722	3.88
Total	172,676	37.79	Total	129,400	28.31

(a) Includes Friendly Health Services.

(b) Includes levies.

The next table summarises the main items of receipts and expenditure and accumulated funds for the period 1967 to 1971:

Friendly Societies (a): Receipts, Expenditure and Accumulated Funds
(£'000)

Year	Net Receipts (b)		Net Expenditure (b)				Accumulated Funds
	Contributions and Levies	Total (c)	Sick Pay	Funeral Benefits	Other (d)	Total	
1967 ..	52	154	20	45	93	158	1,413
1968 ..	51	151	18	49	126	193	1,370
1969 ..	58	156	20	50	69	139	1,387
1970 ..	59	164	18	47	71	137	1,415
1971 ..	64	173	17	41	71	129	1,458

(a) Includes Friendly Health Services.

(b) Excludes interfund transfers and transfers within societies.

(c) Comprises: (i) income from investments (£83,000 in 1971); (ii) grants received by Friendly Health Services from the ordinary societies; and (iii) other revenue items not specified in the table.

(d) Includes administration and medical attention expenses and endowment benefits paid by societies to members.

Registered Building Societies

Types of Registered Society

There are two distinct types of building societies registered under Tasmanian law, namely permanent and terminating (or co-operative).

Permanent Societies: These societies are both savings and deposit-receiving institutions which advance funds for home building or purchase against the security of first mortgages. Those who invest by taking shares or by making deposits are in a separate category from those who borrow to build or buy a home. The following table summarises the transactions of the permanent building societies in Tasmania:

Permanent Building Societies

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	no.	no.	no.	no.	no.
Operating Societies	4	6	6	6	6
Investing Shareholders	8,800	10,600	11,650	13,104	14,347
Borrowers	5,360	5,580	5,840	6,094	6,408
	\$'000	\$'000	\$'000	\$'000	\$'000
Loans—Made	7,893	6,826	10,273	6,520	10,097
Repaid	3,439	3,960	4,332	5,137	5,546
Deposits—Received (a)	11,651	14,185	22,805	29,549	38,975
Withdrawn	9,574	12,913	20,535	26,876	36,187
Liabilities—					
Paid-up Capital and Subscriptions ..	10,831	13,226	16,156	17,780	23,553
Accumulated Profits, Reserves ..	784	784	951	1,079	1,147
Deposits	13,627	14,898	17,169	19,841	22,630
Other	1,498	944	1,746	844	822
Total	26,740	29,853	36,022	39,544	48,152
Assets—					
Loans on Mortgage	24,918	27,784	33,724	35,107	39,657
Land and Buildings	n.a.	683	584	1,188	928
Government Securities	n.a.	1,033	1,255	1,534	3,055
Other Investments	n.a.	106	181	1,430	4,151
Cash and Current Deposits	n.a.	22	10	96	77
Other	1,822	224	268	188	283
Total	26,740	29,853	36,022	39,544	48,152

(a) Includes interest credited to depositors' accounts.

Terminating Societies: These are societies which, by their rules, are to terminate at a fixed date or when a result specified in their rules is attained. Societies issue members one class of share and require equated monthly instalments towards share capital from members; when a member borrows to build (and only a member may borrow) he is required to pay additional equated monthly instalments, such addition constituting interest only. The regular instalments in respect of share capital are calculated to amount, with interest, to the nominal amount of the member's shares over the life of the society (say 26 or 30 years). If the member takes out shares with a nominal value of \$6,000, then his borrowing ceiling is set at \$6,000—in other words, the member takes out, in nominal share capital, the amount which he wishes to borrow for home-building. In effect, the member is contributing to a sinking fund for the liquidation of his loan. The terminating societies are termed 'co-operative'.

In the following table relating to co-operative housing (terminating) societies, 'Loans from Government' and 'Loans Due to Government' up to 1971-72 refer principally to loan money made available under the Commonwealth State Housing Agreement. Such funds were advanced to the societies through the Agricultural Bank which acted as agent for the Commonwealth Government in this field. For 1971-72 loans from the Government for co-operative housing societies were allocated from the State Loan Fund. This system of allocation continued to operate during 1972-73, however, from July 1973 funds are again advanced from money made available under a Commonwealth-State Housing Agreement. The limit of an individual loan was progressively raised from \$8,000 to \$9,000 in August 1969, to \$10,000 in August 1972 and to \$12,000 in July 1973. The next table summarises the transactions of the co-operative housing societies in Tasmania:

Co-operative Housing Societies

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	no.	no.	no.	no.	no.
Operative Societies	69	75	87	92	98
Shareholders	1,634	1,716	1,942	2,089	2,109
	\$'000	\$'000	\$'000	\$'000	\$'000
Loans—Made	1,652	1,088	1,735	1,622	734
Repaid	404	440	454	480	558
Loans from—Government	1,277	1,014	1,059	1,333	525
Other Lenders	439	155	737	373	258
Repayments to—Government	393	419	497	r532	542
Other Lenders.. .. .	222	262	200	237	258
Liabilities—					
Share Subscriptions	630	738	852	980	1,087
Reserves.. .. .	249	316	378	447	522
Loans Due to—Government	5,067	5,662	6,224	r7,024	7,007
Other Lenders (a)	2,330	2,224	2,761	2,897	2,898
Other	96	107	132	r170	139
Total	8,370	9,048	10,348	11,518	11,652
Assets—					
Loans on Mortgage	8,178	8,827	10,109	11,250	11,425
Other	192	221	239	268	227
Total	8,370	9,048	10,348	11,518	11,652

(a) Includes bank overdrafts for day-to-day running of societies.

Co-operative Societies

The next table summarises the financial transactions of societies registered under Tasmanian law as co-operative industrial societies; excluded are co-operative credit societies which are dealt with in a subsequent section. The activities of co-operative societies include processing of primary products, fish and meat marketing and wholesaling groceries; profits are distributed among members.

Co-operative Societies

Particulars	1968-69	1969-70	1970-71	1971-72
	no.	no.	no.	no.
Societies	16	17	17	16
Shareholders	5,705	6,391	6,434	6,695
	\$'000	\$'000	\$'000	\$'000
Sales	9,967	10,451	11,063	12,346
Less Cost of Goods	8,411	8,832	9,278	10,506
Trading Profit	1,555	1,619	1,784	1,840
Add Non-operating Receipts (a)	r657	r749	r626	670
Less Expenses—				
Wages and Salaries	665	788	893	871
Interest	129	130	169	172
Administration	245	281	281	316
Other	r937	r941	r993	955
Net Surplus	234	227	74	196
Dividends Paid	51	56	74	32

(a) Commissions, discounts, services, etc.

The next table shows the assets and liabilities of the societies:

Co-operative Societies: Assets and Liabilities at End of Year
(\$'000)

Particulars	1967-68	1968-69	1969-70r	1970-71	1971-72
Liabilities—					
Paid-up Capital	1,219	1,221	1,224	1,248	1,304
Accumulated Profits	496	566	631	685	788
Reserve Funds	521	585	619	546	479
Loans and Bank Overdraft	2,182	2,082	2,229	2,388	2,333
Sundry Creditors	1,553	1,647	2,012	2,041	2,022
Other	288	242	267	352	279
Total	6,258	6,342	6,983	7,260	7,205
Assets—					
Fixed	2,025	2,019	2,144	2,156	2,306
Stock on Hand	996	961	1,236	1,224	1,228
Sundry Debtors	2,736	2,393	2,527	2,920	2,804
Other	501	969	1,076	961	868
Total	6,258	6,342	6,983	7,260	7,205

Co-operative Credit Societies

Description

The co-operative credit societies (credit unions) are registered under the *Co-operative Industrial Societies Act 1928*. Most credit unions have been established by trade unions (e.g. those serving teachers, hospital employees, etc.) and by church groups. Members contribute capital by taking out shares and making deposits. The aim of the societies is to make loans to members at low rates of interest.

Transactions

The following table shows the societies' annual transactions:

Co-operative Credit Societies

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	no.	no.	no.	no.	no.
Operating Societies	19	19	23	26	27
Shareholders	8,696	10,428	13,681	16,983	19,882
Borrowers	5,226	6,091	8,153	9,773	11,728
	\$'000	\$'000	\$'000	\$'000	\$'000
Loans—Made	2,268	2,664	3,638	4,543	5,814
Repaid	1,462	1,757	2,188	3,112	4,148
Deposits—Received (a)	2,062	3,430	5,290	6,978	9,787
Withdrawn	1,363	2,508	3,979	5,378	7,862
Liabilities (at End of Period)—					
Paid-up Capital	71	89	118	149	174
Reserves, Accumulated Profits	38	69	75	84	78
Deposits	2,475	3,397	4,709	6,308	8,233
Other	135	163	355	318	378
Total	2,719	3,718	5,257	6,859	8,863
Assets (at End of Period)—					
Loans	2,611	3,518	4,968	6,399	8,064
Cash and Current Deposits	95	89	111	207	349
Other	14	111	178	254	450
Total	2,719	3,718	5,257	6,859	8,863

(a) Includes interest credited.

Pensions and Superannuation Schemes

Private Schemes

Surveys on an Australia-wide basis have revealed superannuation and/or retiring allowance schemes for employees in the private sector as follows: (i) schemes operated through life insurance offices, friendly societies and other organisations such as unit trusts; (ii) superannuation, pension and retiring allowance funds constituted by businesses; and (iii) direct payments of pensions and/or retiring allowances by the employer. No details have been released for individual States. Australian data are published in the Bureau's bulletin 'Survey of Selected Private Pension Funds'.

Government, Local Government and Semi-Government Schemes

The levels of government operating in Tasmania are: (i) Commonwealth; (ii) State; (iii) local authority; and (iv) semi-government authority. In the section that follows, any pension or superannuation scheme affecting employees of the Commonwealth Government or its instrumentalities is excluded; the principal fund so excluded is the Commonwealth Superannuation Fund for which State details are not available.

Government superannuation and pension schemes are included as part of 'Private Finance' because the funds involved do not belong to any government but are actually trust moneys held on behalf of contributors. Employees of the State Government contribute to separately constituted funds to which the State Government also makes contributions. Employees of local government and semi-government authorities are covered either by separately constituted funds or by schemes operated through life insurance offices.

The first pension and gratuity scheme for State public servants, introduced in 1860, was non-contributory and short-lived, being repealed in 1863. A contributory provident fund was established under the *Civil Service Act* 1900 but this scheme was also short-lived and made way for a contributory but State-subsidised scheme established under the *Public Service Superannuation Fund Act* 1905; a year earlier, a distinct fund had been established with similar principles to serve the teaching service. The *Superannuation Act* 1938 established a new fund to serve both public servants and teachers but some pensions continued to be paid from the two funds established in 1904 and 1905. It was not until 1 July 1968 that the residual assets and pension liabilities of these older funds were transferred to the State Superannuation Fund Board. The assets transferred from the 1904 teachers' fund were \$52,990 and from the 1905 public servants' fund, \$17,103.

State Superannuation Scheme 1971: In December 1970, the *Superannuation Fund Act* 1938 was amended to provide for adjustments to pensions in accordance with movements in the Consumer Price Index. Next, a new scheme was embodied in the *Retirement Benefits Act* 1970 the date of operation being fixed at 1 July 1971. Contributors to the 'old' scheme were given the right of election, i.e. to change to the 'new' scheme or to stay with the 'old'. The main provisions of the new scheme were as follows:

- (i) A new retirement fund was to be established with contributions from Government and employees.
- (ii) Employees transferring from the old scheme to the new were to pay contributions equivalent to 5.5 per cent of annual salary. New entrants to the State service were to have a choice and either pay at a 5.5 per cent or 2.75 per cent rate.
- (iii) Pensions payable would depend on three factors: (a) length of service (40 years is necessary to obtain the best pension rate); (b) average annual salary received during the last three years of service; and (c) the chosen percentage contribution (i.e. 5.5 per cent or 2.75 per cent).
- (iv) Pensions payable were to be adjusted according to the annual movement in the Consumer Price Index revealed in September quarter figures.
- (v) Persons entering the State service from prescribed superannuation funds were to be able to transfer to the Retirement Benefits Fund without being treated as new entrants (for calculation of length of service).

- (vi) Management and control of the Retirement Benefits Fund is vested in the five-member Retirement Benefits Fund Board.
- (vii) Investment of the Fund is managed by the Retirement Benefits Fund Investment Trust comprising three members, including the Solicitor-General who is Chairman. The Trust may invest in trustee securities and may also invest a small proportion of the Fund in company debentures and the acquisition of land.

The adoption of fixed percentage contributions as the basis for the new scheme overcomes the main difficulty with the more traditional type of scheme, namely the prohibitive cost of new units for contributors in the upper-age brackets. The other improvement is the annual provision for automatic adjustment of the pension in accordance with price index movements.

Separately Constituted Funds: In the table that follows, the operations of the following schemes have been combined and summarised: (i) State Superannuation Fund; (ii) State Teachers' Superannuation Fund; (iii) Police Provident Fund; (iv) Metropolitan Transport Trust—Retiring Allowance and Staff Pension Funds; (v) Marine Boards' independent schemes; (vi) University of Tasmania—Staff Superannuation, Invalidity Pension and supplementary pension schemes; (vii) Hobart Corporation Retiring Allowance Funds; and (viii) Milk Board of Tasmania Superannuation Fund.

State Local Government and Semi-Government Pension and Superannuation Schemes Operated Through Separately Constituted Funds

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	1,763	1,985	2,239	2,715	3,647
Employing Authorities	1,959	2,169	2,368	2,700	3,339
Interest, Dividends and Rent	1,307	1,450	1,654	1,905	2,205
Other Income	59	75	18	r84	(a) 154
Total	5,088	5,679	6,278	r7,405	9,345
Expenditure—					
Pensions	2,290	2,530	2,762	3,132	3,572
Lump Sum Payments—					
On Retirement or Death	194	273	347	570	1,032
On Resignation or Dismissal	399	445	495	485	362
Other Expenditure	114	25	68	105	32
Total	2,998	3,273	3,673	4,292	4,998
Total Assets (b)	24,829	27,241	29,903	32,914	37,311
	no.	no.	no.	no.	no.
Funds in Operation	14	12	12	12	13
Contributors (b)	12,829	13,329	13,618	14,006	14,699
Number of Pensioners at End of Year ..	2,638	2,700	2,757	2,886	3,053

(a) Includes value of insurance policies (\$29,000) transferred to the new Retirement Benefits Fund in 1971-72 from pension and superannuation schemes operated through life insurance offices.

(b) At end of year.

In the previous table, the principal funds included are the State Superannuation Fund and the Retirement Benefits Fund contributed to by all permanent full-time employees of the Public Service, Teaching Service, Transport Commission, Hydro-Electric Commission, Metropolitan Transport Trust and all hospitals subsidised by the State Government. The following table gives principal details of these two funds:

State Superannuation Fund and Retirement Benefits Fund

Particulars at 30 June	Number of Contributors	Number of Pensioners		Accumulated Funds (a) (\$'000)
		Ex-employees	Widows and Children	
STATE SUPERANNUATION FUND				
1969	12,004	1,518	1,147	22,929
1970	12,268	1,585	1,154	25,190
1971	12,643	1,635	1,217	27,962
1972	7,282	1,577	1,213	30,280
RETIREMENT BENEFITS FUND				
1972	6,117	184	43	1,637

(a) Total assets less liabilities.

Police Provident Fund: The Police Provident Fund, a *closed fund* included in an earlier table, had accumulated funds of \$3,250,222 at 30 June 1972. An amendment of the *Superannuation Act* 1938, in 1963, provided that police officers appointed after 31 December 1963 were required to become contributors to the now closed State Superannuation Fund. Police Officers appointed prior to 1 January 1964 could continue as contributors to the Police Provident Fund or exercise an option to become contributors to the State Superannuation Fund.

Schemes Operated Through Life Insurance Offices: A number of local government and semi-government authorities in Tasmania operate pension and superannuation schemes for their employees through life insurance offices. The next table combines and summarises the operations of such schemes. The following are the main authorities concerned: (i) Semi-government—marine boards, fire brigades, Metropolitan Transport Trust (Launceston and Burnie), University of Tasmania, ambulances, Society for Blind and Deaf, Museum and Art Gallery, Botanical Gardens; and (ii) Local Government—the cities and municipalities. Some authorities e.g. University, Metropolitan Transport Trust, etc. operate schemes on both bases, i.e. some through separately constituted funds, and others through life insurance offices.

Local and Semi-Government Pension and Superannuation Schemes Operated Through Life Insurance Offices

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	353	415	463	519	611
Employing Authorities	503	595	663	782	923
Surrenders	91	78	143	148	184
Death Claims	79	34	73	99	85
Matured Policies	63	117	87	r226	120
Other Income	15	23	30	r31	34
Total	1,104	1,260	1,458	1,804	1,957
Expenditure—					
Premiums Paid to Insurance Companies	855	1,010	1,129	1,308	1,534
Benefits—					
On Death or Retirement	143	155	154	r334	217
On Resignation or Dismissal	80	64	123	131	138
Other Expenditure (a)	9	13	19	r14	43
Total	1,087	1,242	1,425	1,786	1,932
Funds in Operation	no.	no.	no.	no.	no.
Contributors (at End of Period)	20	20	20	19	19
	2,200	2,392	2,374	2,436	2,448

(a) Includes \$29,000 transferred by policy surrender to the Retirement Benefits Fund.

Miners' Pension Fund

In 1943 a Bill was introduced into the Tasmanian Parliament to establish a miners' pension fund; the legislation received Royal Assent in 1944. For the purposes of the original legislation and subsequent amending Acts a mine was defined as '... a coal mine or oil-shale mine in this State, and includes a quarry in this State from which coal or oil-shale is obtained, and all the land at or near the entrance to the workings in such a mine or quarry and occupied by the owner in connection with the winning of coal or oil-shale therefrom.'

From the Fund, administered by a three-man board, pensions are paid to miners upon retirement or when incapacitated by injury, etc. and, in certain circumstances, to widows and dependants. Contributions to the Fund are made by the State Government, mine owners and miners. Details are as follows:

Miners' Pension Fund

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	2	3	2	2	2
State Government	30	30	30	30	30
Mine Owners	9	11	12	11	12
Interest, Dividends and Rent ..	11	10	10	9	10
Total	52	54	54	53	54
Expenditure—					
Pensions	67	69	61	57	56
Other Expenditure	2	3	2	2	2
Total	70	71	63	59	59
Assets (at End of Period)	205	187	178	172	168
	no.	no.	no.	no.	no.
Contributors (at End of Period) ..	58	58	54	53	53
Pensioners (at End of Period)	155	153	151	145	140

Until 1962-63, the State Government contributed an amount to match that of the mine owners, the employers' share being related to coal production. After actuarial investigation, it was decided to strengthen the Fund and an amount of \$30,000 was stipulated in amending legislation as the Government's maximum annual contribution. The maximum has since been paid.

The Parliamentary Pension and Superannuation Scheme

The *Parliamentary Retiring Allowances Act* 1955 was repealed and replaced by the *Parliamentary Superannuation Act* 1973, effective from 1 July 1973.

The previous scheme was purely contributive. It provided for a full basic rate pension for members who retired, or were defeated, after a minimum qualifying period of 15 years. Lesser rate pensions were calculated pro-rata to the length of service expressed as a fraction of 15 years; for service less than eight years, a member received only a refund of his contributions. The pension applicable was an amount equal to \$12.50 weekly, plus 34.5 per cent of Australian average weekly earnings per employed male unit in each year ended March, as calculated from employment and wages data on pay-roll tax returns.

Parliamentary Superannuation Act 1973

Administration of the new scheme is in the hands of a three-man Tribunal; the President of the Legislative Council, the Speaker of the House of Assembly and the Under-Treasurer. The rate of contribution to the fund is 12 per cent of the current annual salary, effective from 1 July 1973.

The pension payable to a member on his retirement or defeat is now expressed as a percentage of his current annual basic salary as varied by his total period of service. Full pension rights are established by a minimum period of 15 years service. The percentage of basic salary at the date of retirement varies from 62.5 for 15 years but less than 16 years service, to 70.0 for 20 years or more service.

For those members with less than 15 years but with at least eight years service, the rate of pension applicable is an amount equal to the percentage amount of current basic salary according to the period of service, multiplied by the ratio of the total parliamentary salary received during the period of service to the total basic salary in respect of the period of service. The percentage of basic salary varies from 41.2 for eight years but less than nine years service, to 61.0 for 14 years but less than 15 years service.

Members who retire or resign with less than eight years service receive a refund of contributions. No interest is paid on the accrued contributions.

These general provisions of contribution and rate of pension may be varied in cases where the tribunal sees fit and which are in accordance with the Act. Any appeal against a decision of the Tribunal is heard by the Supreme Court of Tasmania.

Transactions of the old fund (Parliamentary Retiring Allowances Trust) are shown in the following table:

State Parliamentary Pension and Superannuation Scheme
(£'000)

Particulars	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Income—						
Members' Contribution						
(a)	37	40	39	41	43	46
Government Contribution	3	3	3	34	49	76
Interest	3	2	2	..	..	..
Total	43	45	43	75	92	122
Expenditure—						
Pension Payments (b)	48	50	68	86	90	93
Other (incl. Refunds)	4	..	11	1	3	29
Total	52	50	79	86	92	122
Total Assets (at End of Period)	54	49	14	4	..	..
Less Liabilities	1	2	3	3	..	..
Accumulated Funds	53	48	12	..	..	..

(a) Number of contributors throughout period, 54 (House of Assembly, 35; Legislative Council, 19). Contribution for basic rate pension compulsory.

(b) Number of pensioners at 30 June 1972: ex-members, 24; widows of ex-members, 11.

Real Estate Transactions

Title to Land

When acquiring land today, the buyer needs to know whether the documents are under the 'old system' or the 'new system'. The new system dates from the *Real Property Act* 1862 when Tasmania introduced an adaptation of the Torrens system (Sir Robert Torrens' Real Property Act became law in S.A. in 1858). The Torrens system provides that the matter of title to land shall be a government responsibility. Each piece of separately-owned land is represented by a certificate of title which, with a few minor exceptions, is guaranteed by the State; in Tasmania, the issue and registration of titles is the work of the Land Titles' Office. A statutory assurance fund is maintained to indemnify owners against loss through error.

Land alienated before 1862 was not subject to the provisions of the *Real Property Act* and transactions involving such land are still being recorded under the *Registration of Deeds Act* (the first Tasmanian Deeds Act was made in 1827); this is the 'old system', involving complicated conveyancing, searching, etc. The conveyance is merely evidence of ownership as between the parties to the agreement and lacks the element of conclusive proof inherent in the Torrens certificate of title which proclaims 'that the person mentioned in it is owner of the land therein described as against all the world.' Put another way, land passing from A to B, and then to C under the old system requires a search to ascertain the validity of B's ownership and then of A's ownership; under the new system, C's certificate of title is adequate proof without any reference to A and B.

The dual system persists to this day but the *Local Government (Registered Titles) Act* 1966 provided that all new sub-divisions of land should be brought under the *Real Property Act* without charge. Fees on voluntary applications to bring land under the *Real Property Act* have also been abolished to encourage other owners to change to the Torrens system.

Property Sales and Mortgages

Sales of real estate, and mortgages on the security of real estate, involve either certificates of title, under the new system, or deeds, conveyances, etc. under the old system. In the following table, sales and mortgages recorded both under the *Real Property Act* and the *Registration of Deeds Act* are combined to give a single series showing real estate transactions in Tasmania over a ten-year period:

Real Estate Transactions (a)

Year	Property Sales		Mortgages			
	Number	Total Con- sideration	Registered		Discharged	
			Number	Amount	Number	Amount
		\$'000		\$'000		\$'000
1963-64	8,946	47,602	8,754	37,516	6,172	18,264
1964-65	10,163	60,690	9,304	45,996	6,571	22,992
1965-66	10,272	56,637	9,818	44,999	6,722	22,957
1966-67	11,011	65,341	9,408	52,258	7,578	24,990
1967-68	11,626	72,651	10,233	60,980	7,419	25,086
1968-69	10,657	74,069	10,616	67,009	7,009	25,237
1969-70	11,478	87,763	9,877	68,924	7,359	28,490
1970-71	11,092	85,043	9,085	66,468	7,150	32,286
1971-72	11,452	91,435	9,803	71,007	7,813	37,332
1972-73	14,052	135,539	12,134	93,804	9,842	59,796

(a) Registered under the *Real Property Act* and *Registration of Deeds Act*.

WREST POINT CASINO

History of the Casino

In 1966 Federal Pacific Hotels made the first move which culminated in construction and development of the \$5.5m Wrest Point Hotel-Casino complex. Feasibility studies into the establishment of a casino and an international-class hotel in Hobart were undertaken during 1966—the study indicated that such a venture would be successful. Discussions between the company and the Tasmanian Government followed in June 1967. The company's proposals were viewed favourably and in February 1968 details of the proposed casino-hotel complex were made public. The casino proposal created considerable controversy within Tasmania and led to much debate within and outside of Parliament.

In October 1968 the *Wrest Point Casino Licence and Development Bill* was introduced in the House of Assembly; however, strong opposition to the casino was voiced in both Houses of Parliament and it became obvious that passage of the legislation through Parliament was extremely doubtful. At the end of October the Premier, Mr Reece, announced that the Government intended to hold a referendum on the issue. The casino question was put to the Tasmanian electors on 14 December 1968 and the 'Yes' vote prevailed ('Yes', 96,839; 'No', 85,862; 'Informal', 8,339). On 20 December 1968 the Legislative Council passed the *Wrest Point Casino Licence and Development Bill* and the statute received the Governor's assent on 24 December 1968. This cleared the way for preparation of detailed architectural plans (prepared by the Melbourne architect, Sir Roy Grounds) and then construction of the first casino in Australia.

In 1970 further legislation was necessary before construction work on the tower complex could begin. The *Wrest Point Reclamation Act* was passed to enable the company to reclaim land for construction of an access road to the building site and for development of a car park. Permission for work on the first stage of the tower complex was granted by the Hobart City Council in mid-September 1970.

Excavation for the foundations commenced in October 1970 and by February 1971 the constructing company was ready to pour the first concrete for the tower's reinforced foundations into which 1,070 cubic metres of concrete were poured and over 120 tonnes of reinforcing steel were used. Work progressed steadily and in April the foundation stone was placed in position by the State's Acting Premier (Mr Lyons). Construction of the tower complex was completed by July 1972 and in September interior fitting-out began. In December the construction company officially handed over the building to Federal Pacific Hotels. The official opening of the hotel-casino took place on 10 February 1973.

The Casino-Hotel Complex

The tower, 70 metres high from the basement to its top, is the most outstanding feature of the complex. The tower is faced with pure white quartz-concrete panels and is capped by a revolving restaurant capable of seating 150 diners. Apart from the casino the 21-floor tower also contains a theatre-restaurant (capacity 350 diners), a ground floor coffee-grill which operates 24 hours a day, 16 floors of accommodation for 300 guests, recreation and shopping facilities for guests. In the original Wrest Point Hotel a convention area, capable of seating up to 750 people has been established and further accommodation is provided for another 650 guests. The original hotel is connected to the new tower complex by a covered walkway.

The casino, the main reason for the development and principal attraction for many visitors, is located in the ground floor. Floor area of the casino is approximately 700 square metres with a capacity for 300 casino players at the one time. Gamblers may play American or French roulette, black jack, punto banco, chemin de fer or craps. In both roulette games bets are made on a variety of numbers and the ball drops into a numbered slot on a wheel. This determines the winning and losing bets. Black jack, punto banco and chemin de fer are card games while craps is a two-dice game.

Two-Up: An adaptation of the Australian game of two-up (traditionally played with two pennies, players betting on two heads or two tails and also previously an illegal game) was introduced at the Wrest Point Casino in 1973. A new gaming area was developed in the original Wrest Point Hotel and on 9 October a gala opening was held to usher in the new game.

Financial

Federal Pacific Hotels are required to pay a monthly licence fee of \$2,500 and taxes on gross profits to the State Government. Tax rates were set out in the 1968 Act and are as follows:

Taxation Rates

Gross Profit for Month (a) (\$)	Rate of Tax Applicable to Gross Profit for Each Day During that Calendar Month
Less than 25,000	5 per cent
25,000-125,000	5 per cent plus 0.25 per cent of every \$1,000 by which gross profit exceeds \$25,000 (b)
Greater than 125,000	30 per cent

(a) Gross profit is total amount wagered *less* amounts paid out in winnings.

(b) Adjusted to the nearest \$1,000.

Tax payments to the State Government on gaming activities during the period of operation (February 1973 to June 1973) were \$451,108 and licence fees of \$12,500 were also paid to the State. The expected revenue from the casino tax and licence fees for 1973-74 is \$1.25m. In addition to providing revenue for the State Government the casino and associated developments have had a beneficial impact upon the tourist inflow to Tasmania.

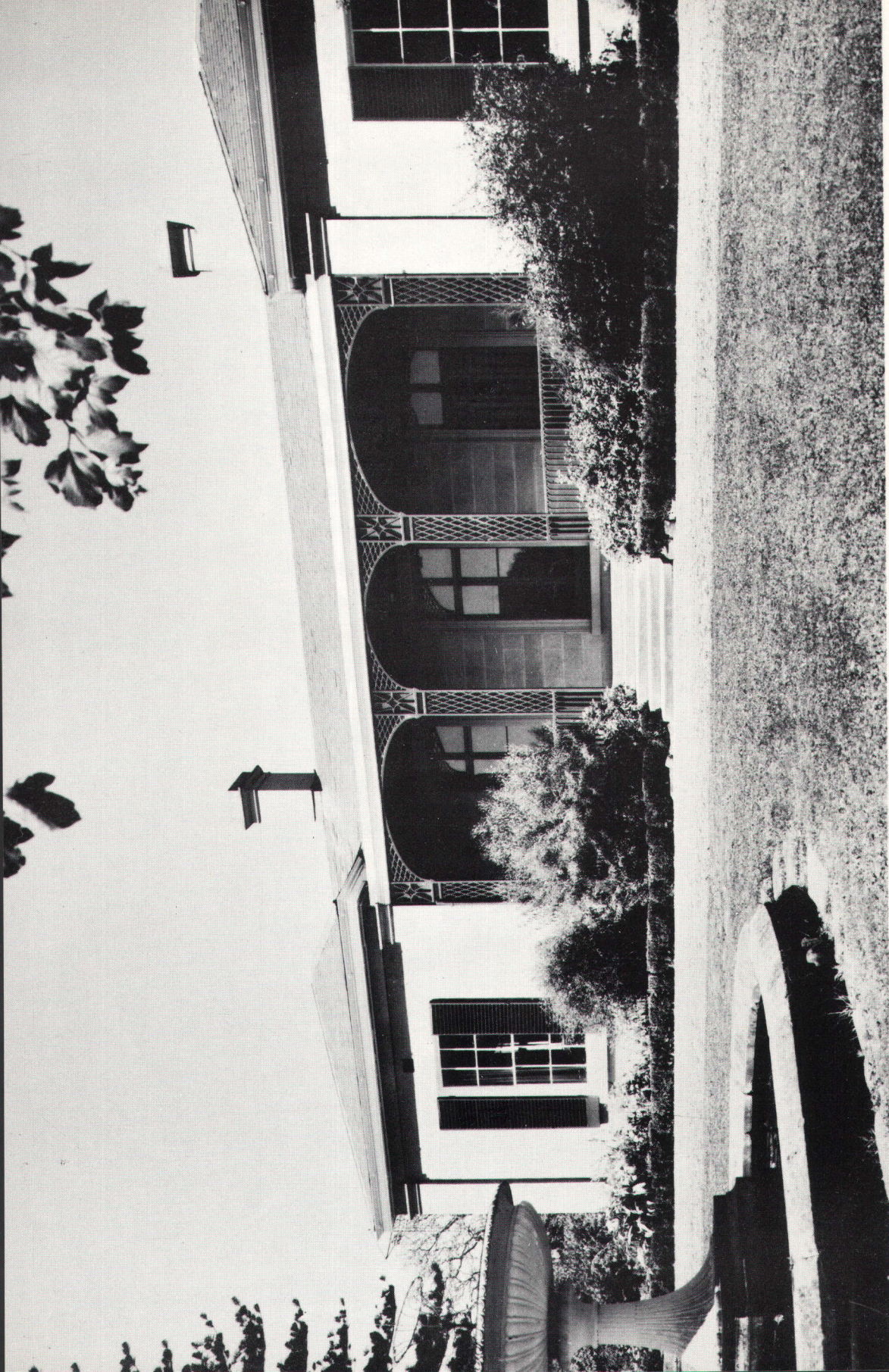
The State's financial interest in the Casino operations is safe-guarded by the appointment of specially trained inspectors. (Training of these men was carried out by an official of the British Gaming Control Board.) All financial operations of the casino are subject to inspection and audit by State Government officials.

Cost of developing the complex was approximately \$5.5m and it represented one of the largest private construction tasks undertaken in Tasmania in recent years.

Casino Company Control Act: This Act, which received the Governor's assent in July 1973, limited foreign investment in any company holding a licence to operate a casino in Tasmania. The upper limit placed on foreign investment in such companies is 38 per cent of issued capital of the company holding the casino licence.

Employment

Approximately 600 persons are employed at the Wrest Point Hotel-Casino; 120 of the employees are casino croupiers, cashiers and supervisors. Intensive training programmes are organised for casino croupiers—a minimum of six weeks training is required for roulette and black jack croupiers while those running craps undergo a two month instruction course.



Ranymade, Hobart

[Dept of Film Production]



The Grange, Campbell Town—two views

[H. Moore]



Chapter 13

HOUSING AND BUILDING

DWELLING STATISTICS

Information concerning the housing of the State's population is obtained from householders' schedules collected during the population censuses. For the purposes of the 1971 Census an 'occupied dwelling' was defined as 'any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building'. The term, therefore, has a very wide reference.

Private Dwellings

Private dwellings are further classified into the following three categories:

Private House: These include separate semi-detached and attached (i.e. a house attached to business premises) houses, terrace (or row) houses and villa flats or cottage units (i.e. one of a group (three or more) of single or double storey homes separate or joined together in sets and *all occupying a common block of land*. Includes shared private houses for which only one census scheduled was received.

Flats: Includes self-contained flats and home units i.e. they are able to be completely closed-off and have their own cooking and bathing facilities.

Other Private Dwellings: Includes non-self-contained flats, room(s), shared part of house for which a separate census schedule was obtained and where occupied on a semi-permanent basis, improvised homes (shed, tent, garage, etc.) and caravans, houseboats, etc.

Other Than Private Dwellings

These include hotels; motels; boarding houses; hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; police and fire stations; residential clubs; staff barracks and quarters, etc.

Unoccupied Dwellings

These include vacant dwellings available for sale or renting; dwellings such as 'week-enders', 'holiday-home', 'second home', 'seasonal workers' quarters', which were not occupied on the night of the census; dwellings normally occupied but whose usual occupants were temporarily absent on the night of the census; newly completed dwellings whose owners or tenants had not entered into occupation on the night of the census; dwellings described as 'to be demolished', 'condemned', 'deceased estate'; and buildings constructed as dwellings but used for non-dwelling purposes on the night of the census. The total of unoccupied dwellings must not be read as the number of vacant houses and flats available for sale or renting.

1971 Census: Dwelling Statistics

Dwellings at 1971 Census

The following table shows the classification of occupied dwellings and the number of unoccupied dwellings at the 1971 Census:

Dwellings at Census 30 June 1971

Description	Number	Total Occupants	Description	Number	Total Occupants
Private—			Non-Private—		
Occupied—			Occupied—		
House	99,396	352,105	Hotels, Motels ..	297	2,454
Self-contained Flat ..	8,417	18,161	Staff Quarters ..	122	2,842
Other	1,784	3,264	Boarding Houses ..	178	1,603
Total	109,597	373,530	Boarding Schools		
			(Incl. Residential		
			Colleges) ..	44	2,310
			Hospitals	46	2,459
Total Unoccupied ..	13,307	..	Other	178	(a) 5,215
Total Private Dwellings	122,904	373,530	Total	865	16,883

(a) Includes migratory.

Nature of Occupancy

The details contained in the next table relate only to occupied private dwellings classified as houses or flats:

Occupied Private Houses and Flats by Nature of Occupancy at Census 30 June 1971

Nature of Occupancy	Houses		Flats	
	Number	Proportion of Total (Per Cent)	Number	Proportion of Total (Per Cent)
Owner	71,334	71.77	1,504	17.87
Tenant—Housing Department	6,485	6.52	452	5.37
Other	16,614	16.71	6,032	71.66
Other and Not Stated	4,963	4.99	429	5.10
Total	99,396	100.00	8,417	100.00

Facilities

At the 30 June 1971, 78.8 per cent of occupied private houses had television. The corresponding percentage for occupied flats was 65.6. In the next table details of the number of occupied private houses and flats served by electricity and gas are given:

Occupied Private Houses and Flats by Facilities at Census 30 June 1971

Facilities	Houses		Flats	
	Number	Proportion of Total (Per Cent)	Number	Proportion of Total (Per Cent)
Electricity Only	91,664	92.22	7,015	83.34
Gas Only	60	0.06	2	0.02
Electricity and Gas	6,889	6.93	1,311	15.58
No Gas or Electricity	240	0.24	2	0.02
Not Stated	543	0.55	87	1.03
Total	99,396	100.00	8,417	100.00

Material of Outer Walls

The next table classifies occupied private houses and flats by material of their outer walls:

Material of Outer Walls of Occupied Private Houses and Flats at Census 30 June 1971

Material of Outer Wall	Houses		Flats	
	Number	Proportion of Total (Per Cent)	Number	Proportion of Total (Per Cent)
Brick (Including Brick Veneer)	29,300	29.48	4,919	58.44
Stone or Concrete	3,255	3.27	1,035	12.30
Wood	62,235	62.61	2,269	26.96
Fibro-cement	3,460	3.48	159	1.89
Other	1,146	1.15	35	0.42
Total	99,396	100.00	8,417	100.00

Intercensal Estimates of Houses and Flats

It is not possible to prepare a detailed analysis of dwellings between censuses but intercensal estimates of the number of houses and flats by local government areas are prepared. The base for the estimates is the total number of occupied and unoccupied private houses and flats as recorded at the preceding Census. The Census figures are then adjusted for: (i) demolitions, destructions by fire, conversions and transfers of houses and flats; and (ii) completions of new houses and flats. Transfer of houses between local government areas is merely a redistribution and does not affect total number of houses for the State. Information about demolitions, conversions and transfers is obtained from local government authorities and the Hydro-Electric Commission. The number of new houses and flats completed is available from the quarterly Building Construction collection conducted by the Bureau.

The following table shows the distribution of total houses and flats recorded at the 1971 Census and the estimated distribution for other years:

Number of Houses and Flats at 30 June

Local Government Area (Statistical Division and Sub-division in Bold Type)				Houses and Flats				
				1969	1970	1971 Census (a)		1972
				Estimate (b) (c)	Estimate (b) (c)	Number	Percentage Occupied	Estimate (b)
Hobart (H)				16,042	16,398	16,793	94.1	17,056
Glenorchy (H)				11,103	11,367	11,749	97.5	12,109
Clarence (H)				9,287	9,892	10,344	92.6	10,785
Brighton (H) (S)				620	624	639	95.3	643
Kingborough (H) (S)				3,025	3,118	3,222	92.8	3,361
New Norfolk (H) (S)				2,520	2,558	2,588	93.0	2,610
Sorell (H) (S)				1,805	1,992	2,185	50.0	2,228
Bothwell (S)				706	708	707	35.9	707
Bruny (S)				297	306	323	35.0	324
Esperance (S)				1,136	1,159	1,167	81.6	1,185
Glamorgan (S)				613	646	685	52.6	694
Green Ponds (S)				266	263	261	95.8	266
Hamilton (S)				906	1,048	1,028	91.4	1,065
Huon (S)				1,401	1,397	1,379	96.2	1,381
Oatlands (S)				770	771	771	84.6	772
Port Cygnet (S)				749	753	741	78.7	741
Richmond (S)				498	497	493	94.3	512
Spring Bay (S)				581	597	609	66.2	651
Tasman (S)				576	619	627	51.5	641
HOBART				52,901	54,713	56,311	89.8	57,731
SOUTHERN								

Number of Houses and Flats at 30 June—*continued*

Local Government Area (Statistical Division and Sub-division in Bold Type)	House and Flats				
	1969	1970	1971 Census (a)		1972
	Estimate (b) (c)	Estimate (b) (c)	Number	Percentage Occupied	Estimate (b)
Launceston	11,455	11,528	11,605	94.5	11,694
Beaconsfield	3,589	3,713	3,825	82.4	3,935
Deloraine	1,511	1,518	1,524	91.9	1,549
Evandale	445	435	431	95.6	431
George Town	1,716	1,777	1,854	77.3	1,926
Lilydale	2,168	2,157	2,205	95.8	2,262
Longford	1,581	1,595	1,609	93.9	1,621
St Leonards	4,227	4,343	4,490	95.7	4,639
Westbury	1,472	1,478	1,483	93.9	1,520
Tamar	28,164	28,544	29,026	91.9	29,577
Campbell Town	545	549	547	83.9	547
Fingal	1,127	1,114	1,104	87.3	1,103
Flinders	345	339	329	83.3	331
Portland	846	945	1,035	44.3	1,068
Ringarooma	840	825	815	88.0	822
Ross	186	185	182	90.7	182
Scottsdale	1,275	1,294	1,322	80.6	1,339
North Eastern	5,164	5,251	5,334	76.9	5,392
NORTHERN	33,328	33,795	34,360	89.6	34,969
Burnie	5,323	5,449	5,588	95.3	5,715
Circular Head	2,304	2,393	2,442	85.3	2,463
Devonport	5,412	5,665	5,871	95.4	6,021
Kentish	1,564	1,581	1,572	88.2	1,561
King Island	732	732	753	93.6	762
Latrobe	1,478	1,545	1,606	85.4	1,640
Penguin	1,294	1,336	1,354	95.3	1,393
Ulverstone	3,146	3,209	3,304	93.8	3,409
Wynyard	2,871	2,991	3,086	90.8	3,183
North Western	24,124	24,901	25,576	92.5	26,147
Gormanston	118	118	119	97.5	119
Queenstown	1,142	1,267	1,288	97.6	1,288
Strahan	178	184	190	64.7	201
Waratah	419	446	477	94.1	495
Zeehan	917	1,004	1,107	79.0	1,261
Western	2,774	3,019	3,181	88.6	3,364
MERSEY-LYELL	26,898	27,920	28,757	92.1	29,511
TASMANIA	113,127	116,428	119,428	90.3	122,211

NOTE: Symbols above mean: (H) = Hobart Division; (S) = Southern Division; (H) (S) = part of municipality in Hobart Division and remainder in Southern Division.

(a) Comprises only those dwellings classified as private (occupied or unoccupied) houses and flats.

(b) Census figures adjusted for new houses and flats completed, demolished, destroyed by fire, transferred between local government areas, etc.

(c) Revised to take account of the results of the 1971 Census.

BUILDING STATISTICS

Scope

For statistical purposes, building relates exclusively to the erection of new buildings (including major new additions to existing buildings); construction work such as the building of railways, bridges, earthworks, water storages, piers, wharves, etc. is excluded. Minor additions, alterations, renovations and repairs to buildings are also excluded because of the difficulty of obtaining lists of persons who undertake this work.

When a dwelling is attached to a new building, the whole unit, both in regard to number and value, is classified according to the type of new building (e.g. a new shop and dwelling is classified simply as a shop). Figures for flats include 'home units' but not conversions of existing buildings into flats. Number of flats refers to the number of new individual dwelling units.

Details obtained from government authorities on their construction programmes and from building contractors refer to all parts of the State. Details for owner-builders cover only those areas subject to building control by local government authorities; thus some farm buildings are excluded but this does not materially affect the figures.

Source of Data

The main statistics relate to building approvals and to building operations (commencements, completions, etc.). The data are derived as follows:

Building Approvals: These comprise: (i) approvals by local government authorities for the construction of private buildings; (ii) contracts let and day labour projects commenced by governmental authorities; and (iii) private buildings reported by contractors to have been commenced in certain areas of the few rural municipalities where building regulations do not apply to the whole municipality. Details are compiled monthly.

Building Operations: Returns are obtained from: (i) building contractors engaged in the erection of new buildings; (ii) owner-builders; and (iii) Commonwealth, State, local and semi-government authorities. Statistics are compiled at quarterly intervals.

Definitions

Contract-built: Includes the operations of all building contractors and government authorities which undertake the erection of new buildings.

Owner-built: An 'owner-built' house is one actually erected or being erected by the owner, or under the owner's direction, without the services of a contractor who is responsible for the whole job.

Commenced: A building is regarded as having been commenced when work on the foundations has begun.

Completed: A building is regarded as having been completed when the contractor has fulfilled the terms of the contract.

With both 'completions' and 'commencements' there is some difficulty in maintaining a uniform classification since the definition of an exact point of time in building operations is involved.

Under Construction: A building is so classified if it is uncompleted at the end of the period, whether or not work on it was actively proceeding at that date.

Values: All values shown exclude the value of land and represent the estimated value of buildings on completion. In the case of owner-built dwellings, the owner-builder is required to estimate the value from the cost of the materials and the cost of labour, including his own.

New buildings, including dwellings, with an estimated value on completion of less than \$1,000 for approvals and \$2,000 for construction are excluded from the tabulations.

Building Approvals

The following table shows details of building approvals; a distinction is made between 'private' and 'government' and the information is dissected to give separate figures for Urban Hobart, Urban Launceston and the remainder of the State. In 1971-72 47 per cent of the total value of building approvals was attributed to Urban Hobart, 12 per cent to Urban Launceston and 42 per cent to the remainder of the State.

Housing and Building
Building Approvals, 1971-72

Particulars	Urban Hobart	Urban Launceston	Remainder of State	Total Tasmania
NUMBER				
New Houses—Private	480	277	1,239	1,996
Government	175	46	267	488
Total	655	323	1,506	2,484
VALUE (\$'000)				
New Houses—Private	7,008	3,373	13,515	23,896
Government	1,584	378	2,573	4,535
Other New Buildings (a)—				
Private	9,882	3,133	8,203	21,218
Government	14,764	1,283	4,387	20,434
Alterations and Additions—				
Private	1,371	467	1,570	3,408
Government	108	55	174	337
All Buildings—Private	18,262	6,973	23,287	48,522
Government	16,455	1,717	7,133	25,305
Grand Total	34,714	8,690	30,423	73,827

(a) Includes flats.

The next table shows the decline in the number of building approvals for new houses since 1967-68. Building of houses in 1966-67 and 1967-68 was at a higher than normal level due to the urgent need to replace many dwellings destroyed during the severe bushfires in southern Tasmania in February 1967.

Building Approvals, Selected Years

Particulars	1961-62	1967-68	1968-69	1969-70	1970-71	1971-72
NUMBER						
New Houses—						
Private	1,910	2,393	2,206	2,124	1,969	1,996
Government	617	916	488	532	612	488
Total	2,527	3,309	2,694	2,656	2,581	2,484
VALUE (\$'000)						
New Houses—						
Private	12,776	22,212	22,292	22,417	21,333	23,896
Government	3,710	7,870	3,602	4,214	5,286	4,535
Other New Buildings (a)—						
Private	11,607	16,972	14,543	21,214	24,281	21,218
Government	7,767	24,964	11,855	11,690	17,092	20,434
Alterations and Additions—						
Private	1,759	1,942	2,219	2,464	2,801	3,408
Government	184	452	211	274	253	337
All Buildings—						
Private	26,142	41,126	39,054	46,095	48,415	48,522
Government	11,661	33,286	15,667	16,177	22,631	25,305
Grand Total	37,804	74,412	54,721	62,272	71,046	73,827

(a) Includes flats.

Government Construction of Houses: The post-war era was notable for the entry of the State Government into the housing field on a large scale; in November 1945, the Commonwealth Government entered into an agreement with the States whereby it would provide finance for housing projects to be built by the State governments. Under the agreement, Tasmania received \$5,670,000 which it repaid on withdrawing from the scheme in August 1950. The Tasmanian Government nevertheless continued to build houses using the resources available from its own Loan Fund. In 1956, the State Government entered into a new agreement with the Commonwealth, an arrangement renewed with minor modifications in 1961 and 1966. This method of allocating funds to the States ceased at 30 June 1971. Tasmania's aggregate advances under the scheme to 30 June 1971 were \$89,477,000. For 1971-72 and 1972-73 funds for State housing were provided as a part of the State's approved loan raisings (i.e. loans raised for housing were credited to Loan Fund and expenditure was made from Loan Fund). Tasmania's Loan Fund allocations for housing were: 1971-72, \$8,300,000 (*Homes Act 1935*, \$5,810,000 and advances through the Agricultural Bank for private home construction, \$2,490,000); and 1972-73, \$9,050,000 (*Homes Act 1935*, \$6,500,000 and advances through the Agricultural Bank \$2,550,000). However, at the June 1973 Premiers' conference the question of allocation of funds for the State Housing was again discussed and a new Commonwealth-State Housing Agreement was proposed. Under the new agreement the States will receive advances for welfare housing during the five years 1973-74 to 1977-78; these advances are in addition to the State's Loan Fund borrowing programmes. (In effect the pre-1971-72 situation has been restored.) Tasmania's allocation for 1973-74 under the new Housing Agreement is \$16m.

The following table shows, for Tasmania, the number of new houses completed, for a recent ten-year period and distinguishes between those built for government authorities (all types) and those built for private persons:

Number of New Houses Completed For Government Authorities and Private Persons

Year	For Government Authorities	For Private Persons	Total	Year	For Government Authorities	For Private Persons	Total
1962-63	563	1,941	2,504	1967-68	737	2,594	3,331
1963-64	554	1,957	2,511	1968-69	735	1,969	2,704
1964-65	579	2,000	2,579	1969-70	683	2,178	2,861
1965-66	557	1,703	2,260	1970-71	627	1,636	2,263
1966-67	627	2,138	2,765	1971-72	466	1,795	2,261

The principal construction authority in Tasmania is the State Housing Department but 'houses built for government authorities' includes construction by, or for, other State and Commonwealth departments, instrumentalities, etc.

New Houses Constructed: The next table shows details of number and value of houses commenced, completed and under construction:

Construction of New Houses

Year	Commenced		Completed		Under Construction (a)	
	Number	Value (b)	Number	Value (b)	Number	Value (b)
		\$m		\$m		\$m
1966-67	2,952	24.6	2,765	22.1	1,729	14.1
1967-68	3,142	27.5	3,331	28.3	1,538	13.3
1968-69	2,580	25.4	2,704	25.5	1,372	12.9
1969-70	2,682	27.6	2,861	28.3	1,163	11.9
1970-71	2,546	27.0	2,263	24.5	1,393	14.5
1971-72	2,231	25.7	2,261	26.2	1,337	14.5

(a) At end of year.

(b) When completed.

The high number of commencements and completions in 1966-67 and 1967-68 was due, in part, to the replacement of many of the 1,200 dwellings destroyed in the bushfires of February 1967.

Material of Outer Walls: The following table shows the number of new houses completed and their classification according to the material used in their outer walls. Until 1963-64, wood was the predominant material used for outer wall construction. However, since then there has been a continuous fall in the proportion of wooden walled houses completed.

Number of New Houses Completed Classified by Material of Outer Walls

Material of Outer Walls	1961-62	1967-68	1968-69	1969-70	1970-71	1971-72
Brick, Concrete, etc.—						
Solid	190	131	177	173	93	80
Veneer	720	1,593	1,547	1,719	1,618	1,701
Wood (Weatherboard, etc.)	1,413	1,395	755	577	350	196
Asbestos Cement	74	207	124	137	121	103
Other .. .. .	..	5	101	255	81	181
Total	2,397	3,331	2,704	2,861	2,263	2,261

Construction of New Houses and Flats

The figures for the more recent years show a marked increase in the number of flats (individual units) erected. In 1971-72 flats comprised 25 per cent of the total number of houses and flats completed.

In the following table, details are given of completions of new houses and new flats:

New Houses and Flats Completed

Particulars	1961-62	1967-68	1968-69	1969-70	1970-71	1971-72
NUMBER						
New Houses—						
Government Ownership—						
Contract-built	237	474	447	370	307	243
Day Labour	310	263	288	313	320	223
Private Ownership—						
Contract-built	1,027	1,705	1,170	1,279	1,092	1,198
Owner-built	823	889	799	899	544	597
Total New Houses	2,397	3,331	2,704	2,861	2,263	2,261
New Flats (Individual Units) (a)	154	292	366	502	667	767
Total New Houses and Flats	2,551	3,623	3,070	3,363	2,930	3,028
VALUE (\$'000)						
New Houses	15,718	28,305	25,523	28,283	24,459	26,165
New Flats (Individual Units) (a)	912	1,773	2,619	3,887	4,816	5,534

(a) Individual dwelling units; conversions of existing dwellings to flats are excluded.

Approximately one-third of all new dwellings built in Tasmania in recent years have been located in Urban Hobart. The State Housing Department's activities in southern Tasmania since 1968 have been concentrated in the Clarence Municipality, with the result that more houses have been built in that municipality during the last four years than in any other.

The next table shows the distribution of houses and flats completed during 1970-71 and 1971-72:

Number of New Houses and Flats Completed						
Area	1970-71			1971-72		
	Houses	Flats	Total	Houses	Flats	Total
STATISTICAL DIVISIONS AND SUB-DIVISIONS						
Hobart	935	509	1,444	875	482	1,357
Southern	109	1	110	178	8	186
Northern—						
Tamar	452	88	540	463	154	617
North Eastern ..	61	9	70	49	21	70
Total	513	97	610	512	175	687
Mersey-Lyell—						
North Western ..	593	53	646	523	91	614
Western	113	7	120	173	11	184
Total	706	60	766	696	102	798
Total Tasmania	2,263	667	2,930	2,261	767	3,028
URBAN AREAS						
Urban Hobart	686	503	1,189	639	435	1,074
Urban Launceston ..	301	82	383	289	128	417

Construction of All New Buildings

The previous tables in this section have been concerned with the construction of new houses or of new houses and flats. In the five years ended 30 June 1972, the value of houses and flats completed has approximated half of the total value of all new buildings completed in each year. The next table shows the value of all new buildings completed according to type; houses and flats are included to allow comparison.

Value of All New Buildings Completed: Classified According to Type
(\$'000)

Type of Building	1961-62	1967-68	1968-69	1969-70	1970-71	1971-72
Houses (a)	15,718	28,305	25,523	28,283	24,459	26,165
Flats	912	1,773	2,619	3,887	4,816	5,534
Hotels, Guest Houses, etc.	1,412	934	1,513	2,107	2,609	2,464
Shops	2,278	1,903	1,103	2,348	2,097	2,515
Factories	4,502	9,686	8,722	6,322	7,451	4,124
Offices	2,080	1,409	4,539	5,291	2,905	6,746
Other Business Premises	1,044	2,339	3,019	1,753	4,330	2,854
Education	2,880	4,572	3,853	6,469	4,259	9,240
Religion	418	178	316	576	377	162
Health	820	3,836	2,251	4,965	1,921	6,668
Entertainment and Recreation	488	616	507	925	1,264	1,006
Miscellaneous	902	6,332	2,984	3,527	3,197	2,238
Total All Buildings	33,454	61,881	56,947	66,452	59,684	69,717

(a) Includes estimated value of owner-built houses.

The following table gives details of the total value of all new buildings commenced, completed and under construction. The items included under 'all new buildings' are specified in the previous table.

Value (When Completed) of All New Buildings (a)
(£m)

Year	Com- menced	Com- pleted	Under Construc- tion (b)	Year	Com- menced	Com- pleted	Under Construc- tion (b)
1962-63	34.6	34.1	28.4	1967-68	63.2	61.9	52.5
1963-64	34.7	34.0	29.1	1968-69	56.2	56.9	51.9
1964-65	42.0	37.7	33.5	1969-70	62.1	66.5	51.0
1965-66	43.8	39.7	37.4	1970-71	70.2	59.7	63.5
1966-67	62.1	48.2	51.3	1971-72	64.3	69.7	61.6

(a) Includes estimated value of owner-built houses.

(b) At end of period.

The following table shows the distribution of the value of new buildings completed according to type:

Value of New Buildings Completed, By Type of Building, 1971-72
(\$'000)

Area	Houses	Flats	Shops	Factories	Education	Other Buildings
STATISTICAL DIVISIONS AND SUB-DIVISIONS						
Hobart	10,932	3,587	895	1,611	5,603	14,028
Southern	1,673	61	74	109	106	1,204
Northern—						
Tamar	5,387	1,111	636	1,325	1,573	2,090
North Eastern	430	99	62	48	460	369
Total	5,816	1,210	698	1,373	2,033	2,458
Mersey-Lyell—						
North Western	5,788	571	714	812	1,281	3,256
Western	1,959	108	137	221	220	1,196
Total	7,746	679	851	1,033	1,501	4,451
Total Tasmania	26,165	5,534	2,515	4,124	9,240	22,138
URBAN AREAS						
Urban Hobart	8,227	3,189	847	923	4,780	13,640
Urban Launceston	3,408	935	636	518	1,474	1,248

FINANCIAL ASSISTANCE FOR HOUSING

The State Housing Department

General

The Housing Department was established in July 1953 as a separate authority to administer that portion of the *Homes Act* 1953 which relates to the purchase and development of land for housing, and the erection of homes for rental and sale. Funds for these purposes, up to 30 June 1971, were made available under the Commonwealth-State Housing Agreement; allocations of loan funds under the agreement were: (i) in addition to loan raisings credited to State Loan

Fund; and (ii) did not form part of State public debt. For 1971-72 and 1972-73 loans for State Housing were credited to State Loan Fund and formed part of public debt. However, for 1973-74 the pre-1971-72 situation was restored when a new Commonwealth-State Housing Agreement became operative. The Department uses both day labour and private contractors and has its own factory for timber storage, milling and joinery manufacture in addition to plumbing and electrical workshops, etc. Most dwellings constructed are three-bedroom timber or brick veneer units, roofed with tiles or corrugated iron. Flats for elderly persons, multi-unit flats and two-bedroom villa units have also been constructed.

Departmental Construction of Dwellings

During 1971-72, 563 dwellings (404 houses, 99 elderly persons' units and 60 villas) were completed. The following table shows the aggregate of dwelling units produced by the Housing Department (and by an earlier State housing construction authority) since 1944:

Aggregate of Dwellings Constructed by State Housing Department From 1944 to 30 June 1972 (a)

Type of Dwelling	Bed-sitting Room	One Bedroom	Two Bedroom	Three Bedroom	Total
Single Unit—Timber ..	..	..	566	9,076	9,642
Other Material ..	..	..	46	2,687	2,733
Elderly Persons' Flatettes ..	286	163	..	..	449
Maisonettes .. .. .	..	..	12	10	22
Multi-unit Flats (Individual Units) .. .. .	..	125	157	14	296
Villa Flats .. .. .	..	..	65	5	70
Total Dwelling Units ..	286	288	846	11,792	13,212

(a) Construction to 30 June 1953 undertaken by Housing Division of State Agricultural Bank; subsequent construction by State Housing Department.

Dwellings for Rental

Flats, maisonettes and elderly persons' homes are for rental only. Houses may be occupied on either a rental or purchase contract basis. There is no actual income limit for eligibility to rent, but families on higher incomes may be expected to purchase. The weekly rental of a newly erected three-bedroom house in the Hobart metropolitan area approximated \$20.55 in the June quarter 1973. In all cases where the occupiers' incomes are insufficient to enable them to afford the full economic rental, rebates may be provided. Rebates are graduated according to the incomes of the occupiers. Under the current rental rebate formula a married couple occupying an elderly persons' flatette, whose only income is the age pension, pay \$3.80 while a single elderly person solely dependent on the pension pays \$2.00 a week (these rates were current at 30 June 1973).

Dwellings for Sale

Sales are made on a no deposit purchase contract basis with repayments over a maximum term of 53 years but buyers are encouraged to pay a deposit if they are in a position to do so. When the agreed purchase price and other charges have been paid ownership of the property is transferred from the Department to the purchaser. Purchase contracts are sometimes surrendered to the Department; when this happens any equity which may have been established in the property is forfeited. Purchasers may sell their homes in certain circumstances. The aggregate number of purchase contracts less surrenders entered into by 30 June 1972 was 8,985. The sale price, excluding land, of a new three-bedroom Department house in the Hobart metropolitan area was approximately \$11,000 in the June quarter 1973.

Amounts outstanding in respect of loans made by the Housing Department by way of purchase contracts are shown in the following table:

Housing Department: Purchase Contracts at 30 June

Loans Outstanding	1967	1968	1969	1970	1971	1972
Number	6,163	6,631	7,099	7,435	7,770	7,998
Value \$'000	40,583	44,708	48,940	52,199	55,892	58,740

The interest rate at 30 June 1973 was five per cent, the immediate previous rate being six per cent. To be eligible for purchase contract terms an applicant must be married, or about to be married, or have dependants for whom it is necessary to provide a home. Date of application, number of dependants, income and existing accommodation are considered in determining applicants' priorities.

Agricultural Bank of Tasmania—Advances to Homebuilders

Housing Function

The Agricultural Bank, as an approved institution under the Commonwealth-State Housing Agreement, received part of the Commonwealth housing funds for advances to home builders. Prior to the commencement of the agreement (1956) and for 1971-72 and 1972-73 the Bank borrowed from the State Loan Fund and from private institutions. However, with establishment of a new Commonwealth-State Housing Agreement in 1973 the Agricultural Bank again receives part of the Commonwealth Housing funds for advances to home builders. To be eligible for a loan, an applicant must be married or about to be married or have dependants for whom it is necessary to provide a home, and also be over the age of 21 years. The maximum amount of an advance is \$12,000 for all types of houses, provided that the total advance does not exceed 90 per cent of the Bank's valuation of land and dwelling cost. Advances are repayable by equated instalments over a period of up to 30 years. The interest rate at 1 July 1973 varied from 5.5 per cent to six per cent according to the applicant's income.

The following table shows details for recent years:

Agricultural Bank: Advances for Housing (a)

Particulars	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Advances Approved—						
Number	279	219	338	274	322	291
Value \$'000	2,159	1,737	2,708	2,250	2,840	2,571
Advances Outstanding (b) .. \$'000	14,930	16,172	17,697	19,184	20,939	22,187

(a) Excludes advances to building societies.

(b) At end of period.

The Agricultural Bank also acts as agent for the State in the transmission of advances under the Commonwealth-State Housing Agreement to the co-operative building societies; details of such advances and of the building societies appear in Chapter 12, 'Private Finance'.

Following the bushfire disaster of February 1967, the Bank was required to administer a separate scheme providing finance for home owners who wanted to build replacement homes to their own design. The net amount of these advances outstanding at 30 June 1973 was \$203,495.

The Commonwealth Department of Housing

General

The Department has four main functions: (i) to assist certain ex-servicemen to obtain housing with finance made available on a term of up to 45 years at an interest rate of 3½ per cent; (ii) to administer the Homes Savings Grant Scheme; (iii) to advise the Federal Minister on the Commonwealth-State Housing Agreements; and (iv) to advise on the administration of the Housing Loans Insurance Scheme.

War Service Homes Loans

Broadly, to be eligible for a loan, an ex-serviceman must have dependants, and must have volunteered for, or had, overseas service. Also, he must not be the owner of a home at the time of seeking a loan. The following table shows details of Defence Service Homes activities in the provision of finance for Tasmanian housing. Transfers of loans (and houses) between borrowers are not shown as expenditure, nor are details given of additional loans advanced for alterations, etc. to homes already subject to Defence Service Homes finance.

Defence Service Homes Operations: Homes Financed in Tasmania

Year	Loans Approved (a)	Homes Financed			Expenditure
		Homes Purchased (b)	Homes Built	Mortgages Taken-over (c)	
	no.	no.	no.	no.	\$'000
1966-67	184	107	25	37	1,170
1967-68	187	108	15	47	1,195
1968-69	180	123	13	41	1,350
1969-70	181	127	6	32	1,300
1970-71	217	133	9	49	1,530
1971-72	257	144	16	41	1,670

(a) Loans *approved* are not necessarily paid out in the same year. A transfer from one borrower and a resale to another is included as a loan approved but not included elsewhere.

(b) New or existing properties not previously subject to Defence Service Homes finance.

(c) Mortgages, raised by individuals to build homes, taken over by Defence Service Homes on satisfactory completion of the home.

Homes Savings Grant Scheme

Under the Commonwealth *Homes Savings Grant Act* 1965-72, a grant is payable to eligible persons who have accumulated savings, over a period of at least three years, towards the purchase of their first home. In September 1972 conditions of the scheme were liberalised and the maximum grant increased to \$750.

In the 1973-74 Commonwealth Budget the Federal Government announced its intention to end the current homes savings grant scheme and introduce a scheme of tax deductibility of mortgage interest to have effect from 1 July 1974. Homes savings grants are to be continued for homes contracted to be bought or built, or to be commenced by an owner-builder, on or before 31 December 1976, by persons who had already commenced to save by 21 August 1973.

The following table gives details for recent years of grants made under the scheme:

Home Savings Grants in Tasmania

Year	Grants Approved for—			Grants Made—	
	Home Purchase	Contractor Construction	Owner Construction	Number	Value
	no.	no.	no.		\$'000
1966-67	395	172	117	684	273
1967-68	458	205	121	784	305
1968-69	442	212	101	755	300
1969-70	432	208	76	716	297
1970-71	638	264	101	947	370
1971-72	712	204	86	1,047	442

Housing Loans Insurance Corporation

The Housing Loans Insurance Corporation was established by the Commonwealth *Housing Loans Insurance Act* 1965-1966 to administer the Housing Loans Insurance Scheme under which approved lenders may be insured against losses arising from the making of housing loans. The Corporation consists of a Chairman (who is also Managing Director) and a Deputy Chairman, who are full-time members plus three part-time members, all of whom are appointed by the Governor-General.

The main purpose of the Housing Loans Insurance Scheme is to assist people to borrow, as a single loan at a reasonable rate of interest, the money they need and can afford to repay to obtain a home suited to their requirements.

To encourage lenders to make high ratio loans, the Corporation may insure a loan of up to \$40,000. The maximum loan to valuation ratio is: (i) 95 per cent where the security is a house or a unit; or (ii) for loans in respect of two units of accommodation 90 per cent.

A once and for all premium is charged by the Corporation at the time the loan is made. The premium is payable by the borrower but lenders may agree to add it to the amount of the loan for repayment by the borrower over the period of the loan. On loans comprising 90 to 95 per cent of the valuation of a home the premium is 1.5 per cent of the amount of the loan. On loans less than 90 per cent of valuation, the premium falls progressively down to 0.25 per cent on loans of less than 70 per cent of valuation.

The maximum rate of interest that may be charged on insured loans (June 1973) is 8.25 per cent per annum and the maximum period for repayment is 40 years for houses and 35 years for home units. The maximum rate of interest is kept under continuing review and may be varied by the Corporation, with the concurrence of the Minister for Housing, whenever changes appear to be warranted by movements in interest rates generally.

The Housing Loans Insurance Corporation insures loans that are made for a wide range of purposes in addition to the purchase or construction of a dwelling. The other purposes include alterations, extensions or improvements to a dwelling and the provision or improvement of roads, kerbing and footpaths.

An insured loan may be made only by an approved lender. Approved lenders are appointed by the Corporation from within approved classes of lenders specified by the Federal Minister for Housing. The approved classes include banks, building societies, co-operative housing societies, friendly societies, life insurance companies, general insurance companies, trustee companies and solicitors' and superannuation funds.

The Housing Loans Insurance Corporation commenced its insurance operations in November 1965 and to 30 June 1973 had insured loans in Tasmania amounting to \$58.8m.

The following table shows, for a three-year period, the number of loans insured, their purpose and amount:

**Housing Loans Insurance Corporation
Loans Insured in Tasmania**

Purpose of Loan	1970-71		1971-72		1972-73	
	Number	\$'000	Number	\$'000	Number	\$'000
Housing—						
Building a New House	83	801	117	1,296	137	1,725
Purchase of—						
New House	80	833	123	1,365	160	2,114
Used House	641	5,542	1,047	9,137	1,416	14,359
Discharge of Mortgage	21	182	42	386	58	619
Home Units	11	127	17	152	28	316
Other	7	54	5	53	20	312
Total	843	7,539	1,351	12,389	1,819	19,445

Chapter 14

EDUCATION AND CULTURAL ACTIVITIES

EDUCATION IN TASMANIA

Introduction

In 1869 Tasmania became the first colony in the British Empire to make education compulsory. The ages for obligatory attendance at school were progressively widened: in 1898 school attendance was made obligatory between the ages of seven and 13 years; in 1912 between six and 14 years; and in 1946 Tasmania became the only Australian State to make attendance compulsory up to the age of 16, the starting age being six.

Education in Tasmania is now provided at primary, secondary and tertiary levels by government institutions and to secondary level by non-government schools.

A period of 82 years in which the State accepted no financial responsibility for non-government education ended in 1967 when amendments to the *Education Act* 1932 allowed government grants to independent schools. The assistance is paid on a capitation basis and is dependent upon the level of schooling of the pupil.

The task of Tasmanian educational authorities, as in other Australian States in the post-war period, has been to provide more schools, more teachers and better facilities; the principal factors exerting pressure have been: (i) a rapidly growing school population; (ii) a change in attitude resulting in increased demand for secondary and tertiary education; and (iii) community acceptance in general of the need for better education.

The sections that follow deal with:

- (i) Education in government and non-government schools.
- (ii) University and college of advanced education courses.
- (iii) Technical education.
- (iv) Adult education.
- (v) Commonwealth activities in education in Tasmania.

Schools, Government and Non-Government

General

In 1946 the Tasmanian government and non-government systems of education were re-organised to provide a three, four or five-year post-primary course. (The pre-war system of secondary education had comprised two stages, a three-year course followed by a two-year course; with a leaving age of 14, and with *selective entry* to government high schools, the proportion of pre-war pupils taking secondary education was very low.)

The dual nature of educational responsibility in Tasmania and the numbers of pupils in both government and non-government schools, in primary and secondary grades, are shown in the following table:

Government and Non-Government Schools
Pupils Enrolled at 1 August According to Grade of Education
(Number)

Particulars	1968	1969	1970	1971	1972
Government Schools—					
Primary Grades (a)	50,603	51,658	51,677	51,361	50,584
Secondary Grades	24,765	25,900	26,895	27,888	28,541
Special	741	781	813	843	832
Total	76,109	78,339	79,385	80,092	79,957
Non-Government Schools—					
Primary Grades	8,675	8,381	8,293	8,028	7,815
Secondary Grades	6,272	6,328	6,302	6,361	6,266
Special	27	31	28	26	17
Total	14,974	14,740	14,623	14,415	14,098
Total All Schools	91,083	93,079	94,008	94,507	94,055

(a) Includes kindergarten classes; see text below.

Kindergarten Classes

In this Chapter, the term *kindergarten* is used to describe all pre-school classes, irrespective of whether they operate attached to other schools or whether they operate as separate entities. Strictly speaking the primary level of education begins in Grade 1 so separate figures are shown in a later table for enrolments in kindergartens.

The State (or Government) School System

Introduction

The present system had its genesis in the *Education Act 1885*, under which a department was established, headed by a Director of Education, responsible to a Minister. Under the Act, aid to non-government schools was abolished and only in 1967 was this principle re-introduced (with a system of capitation subsidies).

Education is compulsory between the ages of six and 16 years although, in some cases, special exemptions may be obtained. With two exceptions, all schools are co-educational. Education is secular and free; parents buy their children's books, paints, instruments, etc. Pupils' transport is either provided by the Department or subsidised where daily travel costs on public transport exceed 14 cents. The arrangement of transport has been important in the organisation of district and high schools where educational facilities are concentrated and centralised, thereby eliminating the smaller country schools.

Present Organisation

Under a Director-General operate three Directors designated: (i) primary; (ii) secondary; and (iii) technical. Superintendents are responsible for specific activities and districts; supervisors assist in administration and provide services to schools. Specialist sections deal with curricula, teaching aids, science equipment, speech education, music, physical education, guidance and welfare, school libraries, educational planning and research, etc.

Expenditure on Education

The following table shows educational expenditure by the State Government from the public account; expenditure from Trust Funds is made by the State acting mainly as agent for the Commonwealth.

Expenditure on Education from Consolidated Revenue, Loan Fund and Trust Funds
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
From Consolidated Revenue—					
Teacher Training	1,614	1,800	2,099	r 2,725	2,720
Primary Education	7,165	7,854	8,951	10,983	12,288
Secondary Education	7,274	8,089	9,922	12,291	14,286
Tertiary Education—					
Technical	1,013	1,129	1,215	r 1,411	1,710
Advanced	400	583	716	r 1,014	2,179
University	1,637	1,788	2,038	r 2,260	2,664
Special Schools for Handicapped Children	248	289	324	408	442
Other	3,788	3,120	3,553	r 4,118	4,010
Total	23,142	25,372	28,818	r 35,210	40,300
From Loan Fund (a)—					
Primary Education	1,268	1,493	1,169	1,132	1,470
Secondary Education	1,224	1,093	1,125	1,343	3,295
Tertiary Education—					
Technical	} 290	-81 {	275	-21	114
Advanced			156	658	1,179
University			1,216	171	338
Other	1,029	1,280	1,527	2,408	2,013
Total	4,106	4,377	5,467	5,691	8,409
From Trust Funds	2,560	3,452	3,612	4,124	4,923
Grand Total	29,808	33,201	37,897	r 45,025	53,631

(a) *Net expenditure.*

It should be noted that the preceding table includes amounts voted under other departmental heads for the provision of educational facilities, principally rental and tenancy charges and water, sewerage and other rates paid by the Lands and Surveys Department.

Enrolment

Enrolments in government schools in the last five years were:

Government Schools
Number of Pupils at 1 August

Pupils	1968	1969	1970	1971	1972
Boys	39,624	40,725	41,319	41,783	41,654
Girls	36,485	37,614	38,066	38,309	38,303
Total	76,109	78,339	79,385	80,092	79,957

Age of Pupils in Each Class

The following table summarises the system of government schooling in Tasmania showing the average ages of pupils in each class and the type of certificate issued for final year examinations:

Government Schools
Average Age of Pupils, Primary and Secondary, in Each Class, and Certificates Issued

Primary Schools (including Primary Classes of District and Area Schools)				Secondary Schools (including High Schools and Secondary Classes of District and Area Schools)				
Grade		Mean Age at 1.8.72		Year		Mean Age at 1.8.72		Certificate Issued
		Years	Months			Years	Months	
Kindergartens—								
Separate		4	10	1 ..	12	9		..
Attached		5	4	2 ..	13	9		..
1	.. ..	6	7	3 ..	14	9		Preliminary School Cer-
2	.. ..	7	9					tificate
3	.. ..	8	9	4 ..	15	8		School Certificate
4	.. ..	9	9	5 (a) ..	16	7	}	Higher School Cer-
5	.. ..	10	9	6 (a) ..	17	9		tificate
6	.. ..	11	9					

(a) Secondary years five and six indicate pupils in their first or second year at Higher School Certificate level.

Number of Government Schools

The following table shows the number of government schools in Tasmania:

Number of Government Schools at 1 August

Type of School	1967	1968	1969	1970	1971	1972
Kindergartens (Separate)	59	58	58	45	44	41
Primary (a)	137	136	140	143	144	144
Primary with Secondary Classes	13	10	9	8	7	8
Special	16	15	15	15	16	16
Area (b)	35	35	35	35	35	34
District (b)	7	7	8	6	6	6
High	28	27	27	28	28	30
Matriculation Colleges	2	3	3	3	3	3
Total	297	291	295	283	283	282

(a) Many have kindergartens attached.

(b) These schools provide both primary and secondary facilities.

Kindergarten Education

Until 1969, pre-schools were established on the initiative of groups of parents, the Department providing the cost of the building but eventually recovering half its outlay from the parents. Commencing in 1969, all new facilities for pre-school education are being provided in kindergartens attached to primary schools. At present, there is a mixture of pre-school facilities, some being provided at primary schools and others constituting separate entities. Pupils at this level of education are shown in the next table:

Enrolments in Kindergartens at 1 August

Particulars	1968	1969	1970	1971	1972
Kindergartens—					
Separate	2,862	2,635	1,938	1,928	1,745
Attached	2,543	3,343	4,217	4,502	4,955
Total (a)	5,405	5,978	6,155	6,430	6,700

(a) Included in other tables as part of total government school enrolments.

State Primary Schools

General: As shown in the earlier table dealing with average ages of pupils, primary education commences at Grade 1 and finishes at Grade 6. However, some pupils entering Grade 1 will have attended kindergarten classes, either attached to primary schools or constituted as separate entities.

Primary Classes: The majority of government primary schools have six grades with kindergartens attached; very few have secondary grades as well. Generally parents may select the school they prefer for their children without restriction but, in some areas, zoning directs children to attend a particular primary school.

In addition 40 district schools have primary grades and draw many pupils from outlying localities previously served by one or two-teacher schools. Free transport has made this possible and has led to a reduction in the total number of primary schools.

Primary Curriculum: The primary school curriculum has undergone considerable changes in recent years both in teaching methods and subject matter. The subjects are English (including reading, spelling, oral and written work), history, geography, arithmetic, science, art, music, arts and crafts, religious and moral education, and health and physical education.

Pupil Grouping: Promotion within the schools is generally by age at the beginning of the school year, with accelerated progress or repetition of classes at the principal's discretion; grouping may be by ability, where numbers allow, with each child being able to work with his equals in each subject, regardless of age. *Differential teaching* adapts the school programme to meet the widely varying needs and abilities of pupils. The skilled subjects of reading, writing, spelling and arithmetic are particularly suited to this method of teaching, testing and grading. The increasing provision of specially designed open plan areas housing two, three or four classes in the space available, provides opportunity for teachers to work as a team and assist in the treatment of individual differences in pupils. Some schools have experimented widely with *non-grading*, a method of organisation which allows pupils in certain subjects to work at their own level of competence. A few other schools have adopted this organisation in one or two subjects only.

Primary Pupils: The table below shows the age and number of pupils receiving primary education in Tasmanian government schools:

Age and Number of Pupils Receiving Government Primary Education (a) at 1 August

Age Last Birthday (Years)	1968	1969	1970	1971	1972
Under 7	13,368	13,644	13,566	13,368	13,199
7	7,442	7,445	7,174	7,058	6,549
8	7,395	7,633	7,449	7,127	7,019
9	7,098	7,313	7,498	7,394	7,089
10	6,807	7,069	7,283	7,518	7,258
11	6,222	6,400	6,620	6,826	7,225
12	2,088	1,943	1,924	1,889	2,104
13	170	192	142	160	124
14	12	15	12	14	9
15 and Over	1	4	9	7	8
Total—Boys	26,295	26,831	26,800	26,652	26,288
Girls	24,308	24,827	24,877	24,709	24,296
Pupils	50,603	51,658	51,677	51,361	50,584

(a) Includes kindergarten classes.

Special Schools and Special Classes

The Department has special schools, and also special classes in ordinary schools, for children who are physically handicapped, mentally retarded, or otherwise unable to profit from ordinary class teaching. Instruction varies according to the handicap; where it is physical, the main need is to maintain normal or near-normal individual programmes. Many pupils eventually can be transferred to ordinary schools into the grades appropriate to their ages.

Schools and classes for slow learners and mentally retarded children follow the curricula for kindergartens and primary schools but no attempt is made to reach examination standards. The teaching of activities and basic skills is the main concern in these classes which are also to be found in some primary and high schools.

Government Secondary Schools

Almost all children attend secondary classes, starting at an age varying from 11½ to 13 years. If a choice has to be made between a high and a district school a transfer committee considers the matter, taking note of performance in grade VI. High schools are non-selective, comprehensive and, with two exceptions, co-educational.

The differences between the types of secondary schools are related mainly to the level of the final examination or certificate available to students. The levels under the recently re-organised system are: School Certificate endorsed Preliminary (three-year course); School Certificate (four-year course); Higher School Certificate (five or six-year course). The School and Higher School Certificates have replaced the Secondary Schools, Schools Board and Matriculation Certificates which were last awarded in 1968.

The essence of the present system is: (i) all assessment and certification come under a single authority, a newly constituted Schools Board of Tasmania; (ii) two certificates only are issued; and (iii) the certificates record achievement in *subjects* and are not *group* certificates as in the previous system. The present certificates are:

The School Certificate: Awarded in subjects for three and four-year courses; basis of award is by internal assessment and recommendation by schools.

The Higher School Certificate: Awarded in subjects studied in fifth or sixth secondary year; basis of award is an external examination conducted by the Board (not the University as for matriculation in the past). The University is still free to determine what constitutes qualification for university entrance and can nominate the subjects and the levels of achievement at the Higher School Certificate examination necessary for entry; the scope of the examination has been enlarged to cover subjects not designed primarily for purposes of university entrance.

A more detailed account of the examinations and procedures adopted for awarding the School and Higher School Certificates is contained in a later section, 'Examinations'.

The following table shows the age and number of students in Tasmanian government secondary schools:

Pupils Receiving Government Secondary Education at 1 August, By Age

Age Last Birthday (Years)	1968	1969	1970	1971	1972
11	365	(a) 453	(a) 518	(a) 420	389
12	4,536	4,457	4,756	4,864	4,837
13	6,140	6,519	6,262	6,640	6,682
14	5,968	6,242	6,503	6,381	6,681
15	4,664	4,950	5,107	5,540	5,451
16	2,070	2,188	2,408	2,522	2,800
17	774	862	1,047	1,130	1,285
18 and Over	248	229	294	391	416
Total—Boys	12,875	13,442	14,022	14,609	14,841
Girls	11,890	12,458	12,873	13,279	13,700
Pupils	24,765	25,900	26,895	27,888	28,541

(a) Includes boys under 11 years: 1969, one; 1970, four; 1971, one.

The next table shows the number of secondary pupils by sex and class in all government schools:

Secondary Pupils in Government Schools at 1 August by Class

Year	Secondary Year						Total	
	1	2	3	4	5	6		
Boys								
1968	..	3,691	3,297	2,970	1,912	557	448	12,875
1969	..	3,646	3,586	3,041	2,050	616	503	13,442
1970	..	3,668	3,541	3,260	2,191	797	565	14,022
1971	..	3,669	3,590	3,301	2,476	865	708	14,609
1972	..	3,605	3,542	3,360	2,617	934	783	14,841
GIRLS								
1968	..	3,421	3,125	2,963	1,635	486	260	11,890
1969	..	3,354	3,362	2,937	1,952	555	298	12,458
1970	..	3,292	3,283	3,145	2,067	696	390	12,873
1971	..	3,347	3,211	3,156	2,333	789	443	13,279
1972	..	3,453	3,284	3,040	2,426	922	575	13,700

District Schools

Area schools, first established in 1935, were replaced by district schools from the beginning of 1973. The area schools were designed to serve rural areas; however, changing concepts of education and parental demands for a higher level of education more closely related to the levels provided by high schools led to an upgrading of the level of education offered at country secondary schools and to the creation of a new school type, district schools.

Subjects for the School Certificate are available to pupils in some primary schools with secondary classes, in all district schools and in all high schools.

Government Matriculation Colleges

At matriculation colleges students are exclusively concerned with Higher School Certificate subjects undertaken as one or two-year courses. The first such college was the Hobart Matriculation College (previously Hobart High School)—no junior students were enrolled after 1961 and by 1965 all students were attempting matriculation. In 1967 Launceston High reached this stage and in 1968 the Elizabeth Matriculation College, in Hobart, was opened and elimination of junior students was completed by 1970. In 1973 the newly constructed Rosny Matriculation College was opened to serve the eastern shore suburbs of Urban Hobart. (The three earlier matriculation colleges had resulted from conversion of existing high schools.) A matriculation college was also opened at Devonport during 1973 while another college is planned for Burnie. (At present Burnie High School has Higher School Certificate classes.)

The advantage claimed for matriculation colleges is that they concentrate, in the one centre, teachers who are specialists; further, the students benefit to the extent that the colleges are an intermediate step between the disciplined high school and the university.

Correspondence School

This school offers a wide variety of courses at the primary and post-primary levels, and provides instruction for adults as well as children. Valuable assistance is given to pupils in secondary classes of some primary schools and district schools to assist them to achieve School Certificate standard.

The courses available include all primary and most secondary subjects: mathematics, English literature and history at the Higher School Certificate stage; English for New Australians; and courses for adults with special problems such as illiteracy.

Teachers and Teacher Training

There is a variety of courses available to trainee teachers in this State. The University of Tasmania awards the Diploma of Education after one year of a post-graduate course in which graduate students train as infant, primary or secondary teachers. The Tasmanian College of Advanced Education, with a northern division in Launceston and a southern division in Hobart, provides a basic three-year course with an extension to four years for some selected students. On completion of the three-year course the student is awarded the diploma of teaching and it is proposed that on completion of the four-year course the student will qualify for the degree of Bachelor of Education. Both divisions offer courses for training in kindergarten, infant, primary and secondary teaching, but specialist courses are not common to both divisions. Specialisation in physical education, music, art and industrial arts is only possible in Hobart, whereas courses in English speech and drama, home economics and commercial subjects are only offered in Launceston.

Each year some students are given the opportunity of training in other States in areas for which courses are not available in Tasmania e.g. speech therapy (at the University of Queensland), Asian languages (at the Australian National University, Canberra) and training for teaching deaf children (at the Glendonald Institute in Victoria).

The following table shows the number of teachers, lecturers and instructors in Tasmanian government schools, technical colleges, etc:

Number of Government School Teachers, Lecturers and Instructors at 1 August 1972 (a)

Type of School	Full-time			Part-time		
	Males	Females	Persons	Males	Females	Persons
Kindergarten (Separate) .. .. .	..	45	45	..	6	6
Special	22	71	93	1	10	11
Primary	300	1,187	1,487	..	64	64
Primary with Secondary Classes ..	10	19	29	3	4	7
Area	151	266	417	3	33	36
District	44	74	118	..	8	8
High	699	570	1,269	5	28	33
High with Matriculation—						
High	50	37	87	..	..	..
Matriculation	28	12	40	..	..	..
Matriculation Colleges	125	64	189	..	..	..
Technical Colleges	144	28	172	323	71	394
Total	1,573	2,373	3,946	335	224	559

(a) Excludes teachers in non-teaching positions (e.g. curriculum branch staff guidance officers, speech education, music and training aid centres).

In the primary schools in 1972, 80 per cent of the teachers were females. All subjects are taught by each teacher in these schools but itinerant teachers, when available, take physical education, music and speech classes on a circuit basis with each teacher being responsible for the teaching of the subject in several schools. In the post-primary schools, most teachers are specialists attached to subject departments within each school. In the smaller district schools, one teacher may take several subjects; agriculture, home arts and crafts and technical subjects are handled by resident or itinerant specialists as available.

The following table shows the number of teachers and teachers-in-training in Tasmania:

Full-Time Teaching Staff in Government Schools (a) and Teachers-in-Training at 1 August

Type of Teacher	1968	1969	1970	1971	1972
Head Teachers—					
Males	229	232	241	229	223
Females	13	12	12	15	17
Other Teachers—					
Males	1,084	1,104	1,119	1,197	1,275
Females	2,185	2,237	2,330	2,368	2,391
Total Teachers (a)—Males ..	1,313	1,336	1,360	1,426	1,498
Females ..	2,198	2,249	2,342	2,383	2,408
Teachers-in-Training—					
Males	344	355	405	460	492
Females	712	773	763	856	945

(a) Includes teachers in non-teaching positions (e.g. curriculum branch staff, guidance officers, etc.) but excludes those engaged in teacher training and technical education, and part-time teachers.

Teacher Training: The institutions where teachers-in-training are studying are shown in the next table:

Teachers-in-Training at 1 August

Institution Attended	1968	1969	1970	1971	1972
MALES					
Teachers College—Hobart	36	45	56	62	(a)
Launceston	28	49	55	66	(a)
University of Tasmania	250	226	249	266	243
School of Art	12	9	13	16	(a)
Tasmanian Conservatorium of Music ..	8	5	4	2	(a)
Other Institutions	10	21	28	48	52
Tasmanian College of Advanced Education .. ..	..	..	..	..	197
Total	344	355	405	460	492
FEMALES					
Teachers College—Hobart	172	212	212	211	(a)
Launceston	186	215	211	264	(a)
University of Tasmania	312	298	287	325	287
School of Art	17	24	34	35	(a)
Tasmanian Conservatorium of Music ..	14	16	13	14	(a)
Other Institutions	11	8	6	7	5
Tasmanian College of Advanced Education .. ..	..	..	..	..	653
Total	712	773	763	856	945

(a) From 1972 included under Tasmanian College of Advanced Education.

Non-Government (or Independent) Schools

Introduction

Non-government schools have played a valuable part in Tasmanian education. Policies are framed by headmasters in conjunction with their senior staff and with the approval of their governing bodies or church. There can be freedom to experiment and to diversify courses if desired and this is shown by the number of subjects available to students.

Registration

Non-government schools and teachers have to conform with the regulations of the Teachers' and Schools' Registration Board. This Board consists of nine members who hear and determine all applications for registration and keep a record of all teachers and schools not administered by the Education Department. Every school is graded and teachers are registered in one or more classifications or as special subject teachers. 'Provisional' teachers are those gaining qualifications so they can be registered. The Board may prescribe the mode of classifying teachers, the course of study and training required, the examinations to be passed, and the recognition of overseas qualifications. To secure registration, schools must provide for proper access, drainage, light, ventilation and sanitary conveniences, and inspections may be made by officers appointed by the Board. A daily register of attendance has to be kept.

State Assistance to Non-Government Schools and Pupils

The *Education Act 1932* was amended in 1967 to provide for direct payments to non-government schools, the amount being calculated on a capitation basis; the subsidies are paid on the number of pupils enrolled at 1 August each year; for 1973-74 the amounts were \$24 per annum per primary pupil; \$34 per annum per secondary pupil up to fourth-year level; and \$54 per annum per pupil at fifth and sixth-year levels. From 1972-73 per capita grants of \$24 per annum per pupil were paid in respect of kindergarten pupils aged 5 years or more at 1 August. The 1972-73 expenditure was \$414,000. From the beginning of 1970, the Commonwealth also provided per capita grants to independent schools. Details are contained in a later section dealing with Commonwealth activities in education. State legislation passed in June 1970 provides for subsidies related to building loans interest. The amount of subsidy paid in 1972-73 was \$207,000.

Apart from these subsidies, benefits include: matriculation allowances; secondary scholarships; free or subsidised transport; use of the facilities of the Department's Curriculum, Teaching Aids, Speech Education and Guidance Branches; attendance at trade and domestic science classes if room is available; and attendance by teachers at Departmental schools of method. Equipment can be purchased at favourable rates through the Supply and Tender Department.

Enrolment at Non-Government Schools

Most non-government school pupils are in schools controlled by religious denominations, as the next table shows.

**Non-Government Schools and Pupils at 1 August
(Number)**

Particulars			Church of England	Pres- byterian	Catholic (a)	Seventh- day Adventist	Other Schools	All Schools
PUPILS								
1968	..	.. Boys	1,029	335	5,061	74	748	7,247
		Girls	860	303	5,539	70	955	7,727
1969	..	.. Boys	1,003	303	4,968	80	770	7,124
		Girls	825	329	5,446	75	941	7,616
1970	..	.. Boys	969	280	4,896	70	812	7,027
		Girls	788	302	5,420	76	1,010	7,596
1971	..	.. Boys	878	256	4,800	70	876	6,880
		Girls	734	299	5,367	67	1,068	7,535
1972	..	.. Boys	835	236	4,677	63	905	6,716
		Girls	722	302	5,182	66	1,110	7,382
SCHOOLS								
1972	..	.. ..	4	2	45	3	12	66

(a) Includes one 'Special School' with an enrolment of approximately 30 girl pupils.

Of the 24 schools in 1972 which catered for secondary pupils, 17 had Higher School Certificate classes.

Most independent school pupils are to be found in primary classes, and most of these are in Catholic schools. The following table shows the numbers and ages of all pupils in non-government school primary and sub-primary classes:

Pupils Receiving Non-Government Primary Education at 1 August, By Age (a)

Age Last Birthday (Years)	1968	1969	1970	1971	1972
Under 7	2,293	2,182	2,254	2,109	2,106
7	1,201	1,193	1,097	1,081	959
8	1,184	1,128	1,138	1,073	1,073
9	1,201	1,163	1,131	1,089	1,057
10	1,217	1,170	1,165	1,133	1,106
11	1,112	1,047	1,094	1,147	1,103
12	394	396	365	358	373
13	62	93	46	33	36
14	9	8	2	3	1
15 and Over	2	1	1	2	1
Total—Boys	4,161	4,051	3,978	3,829	3,703
Girls	4,514	4,330	4,315	4,199	4,112
Pupils	8,675	8,381	8,293	8,028	7,815

(a) Excludes the special school pupils specified in the note to the previous table.

The following table shows the age of pupils in non-government schools at secondary level:

Pupils Receiving Non-Government Secondary Education at 1 August, By Age

Age Last Birthday (Years)	1968	1969	1970	1971	1972
11	160	(a) 158	159	109	118
12	1,039	1,040	1,059	1,042	942
13	1,256	1,255	1,268	1,309	1,321
14	1,275	1,284	1,286	1,304	1,309
15	1,252	1,177	1,160	1,200	1,191
16	792	905	795	863	790
17	387	410	460	428	484
18 and Over	111	99	115	106	111
Total—Boys	3,086	3,073	3,049	3,051	3,013
Girls	3,186	3,255	3,253	3,310	3,253
Pupils	6,272	6,328	6,302	6,361	6,266

(a) Includes one 10-year old boy.

The following table shows the number of secondary pupils by sex and class in all non-government schools:

Secondary Pupils in Non-Government Schools by Year at 1 August 1972

Pupils	Secondary Year						Total
	1	2	3	4	5	6	
Boys ..	595	612	607	533	426	240	3,013
Girls ..	675	708	661	700	320	189	3,253
Total ..	1,270	1,320	1,268	1,233	746	429	6,266

Examinations

Introduction

The Schools Board of Tasmania was constituted on 31 October 1944 by the *Education Act* 1944 to devise and govern new systems of awarding school certificates.

In 1946 the school leaving age in Tasmania was raised to 16 years and the Board instituted a four-year course of academic secondary education leading to the Schools Board Certificate. The Intermediate Examination, which had been conducted by the University at third-year secondary school level until 1938, had been replaced by similar examinations conducted by the State Education Department and the Associated Public Schools. These were replaced in 1946 by the Schools Board Certificate, studied at fourth-year level.

This Schools Board Certificate demanded a level of achievement in basic and optional subjects after a four-year course of general education. Secondary schools were allowed the choice between an accrediting system or an external examination.

As a result of the proposals of the Schools Board and the Radford Report, the Schools Board was re-constituted with a membership of 21 on 1 September 1966, to allow the Board to become, in 1969, the sole examining and certifying body at the secondary level.

An important change of considerable significance to employers, and to the prerequisites they demand of applicants for employment, concerns the new type of certificate introduced in 1969. There are only two such certificates issued, known as the School Certificate and the Higher School Certificate. These replaced all previous certificates. The Schools Board Certificate, the Secondary Schools Board Certificate of the Education Department and the Matriculation Certificate of the University of Tasmania are no longer issued. The previous certificates were *group* certificates demanding, in varying degrees of detail, certain compulsory subjects or groups of subjects as a prerequisite to the award of the certificate. The essential difference is that both of the new certificates are *subject* certificates requiring no compulsory subjects or groups of subjects to be studied.

The Higher School Certificate is issued on the basis of an external examination conducted in December each year but for the School Certificate there are no external examinations and awards are determined by internal assessment with a wide variety of methods of evaluation. A system of regional moderation has been implemented by the Schools Board to ensure comparability of standards between schools. (*See the later section outlining the organisation of moderation procedures.*) Final results of the School Certificate are notified to candidates in December by the principal of the school attended by the candidate. Each candidate receives a printed result slip showing the level of study and the award given in each subject. The formal certificate is issued by the Schools Board of Tasmania.

The School Certificate

The subjects for this certificate may be taken at various levels and a wide choice is available to cater for different levels of ability and interests. A preliminary award (P) may be granted after the third year of secondary education to those candidates who leave school at this stage. The full award is granted to successful candidates who complete four years of study in the subject.

The Higher School Certificate

This is taken at the end of the fifth or sixth year of secondary education. The certificate is awarded as a result of examinations conducted in November or December each year. Subjects may be studied at Level I, Level II, Level III (Division 1) or full Level III, but all levels are not necessarily available for all subjects. Requirements for matriculation are determined by the University of Tasmania from the results of the Higher School Certificate examinations conducted by the Schools Board of Tasmania in certain Level III subjects.

In 1974 the full Level III award in all subjects will be obtained only in an examination of the full Level III syllabus, although in some subjects the Board has approved a standardised school assessment which forms part of the final award.

In most subjects a Level III (Division 1) syllabus will also be provided for those wishing to undertake a preliminary study of the subject before attempting the full Level III syllabus. It is not necessary to attempt the Division 1 syllabus to obtain a full Level III award, nor do results at Level III (Division 1) count towards the full Level III award.

State Organisation of Moderation Procedures

The Schools Board of Tasmania is the body responsible for awarding the secondary school awards (the School and Higher School Certificates) discussed in the previous section. The Schools Board is also responsible for ensuring development of satisfactory moderation procedures and the maintenance of subject standards. To this end, the State is divided into seven *moderation regions*. Moderation is the method used to ensure reasonable comparability of standards between schools throughout the State.

Committee for Moderation of Standards: This body determines subject standards and reviews moderation procedures. Members of the committee include representatives from the Schools Board, superintendents of high schools and representatives from non-government schools and the teachers' union—the Teachers' Federation.

Regional Council: Operations of the scheme for moderation of standards are reviewed by the Council which recommends variations to the Schools Board. Members include secondary school superintendents and school principals in the region. The chairman is appointed by the Schools Board from members of the Committee for Moderation of Standards.

Moderation Advisory Committee: Moderation procedures are planned in detail by the Committee which also investigates problems in particular subject fields. The chairman of the Committee for Moderation of Standards is also the chairman of this body; other members include the members of the Committee for Moderation of Standards and the chief moderators.

State Moderation Committee: The committee promotes the flow of ideas on moderation between regions and identifies and resolves problems connected with particular subjects. The chief moderator in each subject is chairman and the remaining members are the regional moderators (seven) in each subject.

Regional Moderation Committee: Application of moderation procedures within the region is the responsibility of this Committee. Chairmanship is vested in the regional moderator; other members are subject moderators from each school in the region.

As well as the various committees there are a number of positions, mostly filled by teachers, which are basic to the successful operation of the system. The following briefly outlines the functions associated with each position:

Chief Moderator: Appointed by the Schools Board and responsible for the co-ordination of moderation procedures between regions in each subject field.

Regional Moderator: Appointed by the Schools Board on the recommendation of the Regional Executive Committee. A regional moderator is appointed in each subject field. The duties associated with this position include: (i) maintaining contact between subject moderators within the region and ensuring satisfactory subject standards; and (ii) informing subject moderators of current developments in their subject and in the field of assessment.

School Moderator: This position will normally be held by the school principal. The school moderator's duties include: (i) appointing school subject moderators; (ii) determining the results of each School Certificate candidate in his school and submitting award recommendations to the Schools Board; (iii) communicating result sheets (showing percentage scores of students on test materials) to the Schools Board for distribution to the Regional Moderation Committees; and (iv) informing the Regional Executive Committee of names of teachers willing to accept nomination for the position of regional moderator.

Subject Moderator: Appointed by the school moderator. The duties include: (i) supervising all details of assessment in his subject for the award of the School Certificate; and (ii) informing the Regional Moderation Committee of proposed assessment plans.

Other Education Matters

Various functions of the Education Department are described in the following section; some of which are applicable to both government and non-government schools.

Equipment

The Department maintains an active interest in the development of teaching methods and of teaching aids. The Teaching Aids Centre provides specialised assistance to schools. A library of 16mm films, film strips and coloured slides and records are distributed on loan. The records are mainly used for music appreciation, poetry and languages. Printed aids, mainly in the form of charts and booklets, are provided (e.g. charts for cursive writing and booklets for the Cuisenaire system). Audio-visual aids (tape recorders, film projectors, centralised radio systems, strip and sound projectors, television receivers, etc.) are bought by the Centre and re-sold to the schools with a \$ for \$ subsidy given by the Department. Repair and maintenance of this equipment is done free of charge by the Centre. Specialised electronic equipment has been developed and produced, e.g. auditory training equipment for deaf students. A talks studio with recording equipment and tape duplicating facilities operates to prepare language laboratory programmes and the recording of school broadcasts.

A number of students' books are produced for sale to schools by both the Education Department and the Australian Broadcasting Commission.

Libraries

A significant development programme in this field has been implemented in recent years, particularly in the high schools and matriculation colleges where substantial print and audio-visual resource collections have been built up in attractive and spacious library suites. A comparable programme in primary and district schools is currently about to be launched. Over \$160,000 annually is granted directly to schools on a per capita basis for the purchase of library resources.

The introduction of a post-graduate course in librarianship at the Tasmanian College of Advanced Education has made possible the recruitment and training of at least 10 new teacher-librarians each year. Shorter courses to train primary school librarians will be available in 1974.

The Library Services Branch, under the direction of a Supervisor of Libraries, offers expert bibliographic and technical advice to schools and controls a central cataloguing service to schools.

Radio and Television Programmes

Radio: All schools in the State use one or more of the programmes provided by the Australian Broadcasting Commission. In most primary schools programmes are taken direct from the air, but secondary schools use a tape service provided by the Education Department Teaching Aids Centre. The Centre records all secondary school programmes and distributes the tapes on loan to schools which would otherwise have trouble fitting programmes into school timetables. Some primary programmes are also recorded for schools in poor reception areas.

Television: Tasmania leads the Commonwealth in the availability and use of educational television; programmes are provided by the A.B.C. Every government and non-government school within a television reception area is equipped with at least one receiver. The schools have a standard issue of one free set each and extra sets may be purchased. For extra sets the State Government provides a subsidy equal to 50 per cent of the purchase price. The maximum use of television is made by primary schools where timetables are quite flexible; many secondary schools have difficulty in planning timetables so that classes may view programmes. For this reason great interest is being shown in Departmental experiments with video-recording which, it is hoped, will make television as flexible an educational aid as pre-recorded radio programmes.

Selection of Programmes: Curriculum officers and teachers are represented on the planning and appraisal committees for all Tasmanian produced programmes. The committees also assist with selection of series from other sources.

Staff: Apart from technical staff, the A.B.C. employs a state supervisor of education (Schools Broadcasts), two radio producers, two television producers and associated staff. The Education Department provides a liaison officer and studio teachers, seconded full-time to the A.B.C.

Safety Officers

Transport Commission officers visit the schools regularly to give lectures and practical demonstrations dealing with various aspects of road safety. Driver education courses are given in some schools, a type of training likely to be extended. Periodically students are reminded of the dangers associated with explosives, firearms and drug abuse.

Parents and Friends Associations

While a major function of these bodies is fund-raising for the provision of subsidised equipment and library books, they also act as a valuable forum for discussion on education.

Migrant Education

This is arranged by the Department at certain schools or by combined radio-correspondence lessons to teach English to migrants. The cost of migrant education is reimbursed by the Commonwealth Government.

The School Free Milk Scheme

Free milk was available to all children under 13 years attending government and non-government primary and infant schools, kindergarten (pre-school) centres, creches, child-minding centres and orphanages. One-third of a pint of milk was supplied daily, the cost being borne by the Commonwealth. However, in the 1973-74 Budget the Commonwealth Government indicated its intention to modify the scheme. From January 1974 free milk is to be made available only to those schools, etc. where a special need, justified on health grounds, exists. Cost of the free milk scheme, in Tasmania, for 1972 was \$561,000.

Bursaries

A system of junior and senior bursaries operated to assist pupils in post-primary government and non-government schools. However, senior bursaries have not been awarded since 1966 when Commonwealth Secondary Scholarships were introduced. After the introduction in 1973 of a Commonwealth scheme of assistance for school children living in remote localities the award of junior bursaries also ceased.

During 1972, 40 junior bursaries were held at a cost to the Bursaries Board of \$4,265. In 1973 seven junior bursaries were awarded. The Bursaries Board fund comprises money from the Government and private donations.

Currently the principal forms of assistance are:

- (i) *Matriculation Allowances* are payable, subject to a means test, to parents or guardians of full-time Higher School Certificate students. The annual allowance is \$75. During 1972, 414 allowances were granted and expenditure was \$31,050.
- (ii) *School Certificate Allowances* are payable to parents or guardians of full-time students undertaking their fourth year of secondary education. The allowance, subject to a means test, amounts to \$50 per annum. The number granted during 1972 was 1,013 and expenditure was \$50,650.
- (iii) *Special Bursaries* are awarded in cases of necessitous circumstances and where the student has shown an aptitude for further study. For 1972, 138 special bursaries, involving expenditure of \$22,140, were awarded.
- (iv) *Loan Issue Supplies* are provided to assist parents who are unable to meet the cost of text books, materials and subject levies associated with educating their children. Expenditure under this scheme during 1972 was \$83,330.

Advanced Education in Tasmania*Concept*

Education at tertiary level has been available at universities but there have also been professional courses provided by other institutions; in Tasmania technical colleges provided courses of this type in addition to playing their main role in providing apprentice training, trade courses, etc. So, in effect, the development in recent years of colleges of advanced education does not represent a radical innovation but rather a rationalisation and re-organisation of non-university tertiary courses. The Commonwealth Government, having first accepted some financial responsibility for university education, has now gone further and is actively encouraging the development of colleges of advanced education.

In general terms, the colleges are providing tertiary education and training with a vocational emphasis, as distinct from the academic education provided by universities (though, of course, some university courses in Australia tend to be also vocational, e.g. legal and medical courses). In some States advanced education is being developed on a base provided by existing institutions but in Tasmania and the A.C.T. separate colleges have been established.

Finance

At the June 1973 Premiers' Conference the States accepted the Commonwealth's offer to assume full financial responsibility for tertiary education from 1 January 1974. (The amounts of recurrent expenditure saved by the States were deducted from their financial assistance grants.) Prior to this date the Commonwealth provided \$1 for every \$1 of State capital expenditure and \$1 for every \$1.85 of State recurrent expenditure on advanced colleges of education. The Commonwealth Government also announced in its 1973-74 Budget the decision to abolish tuition fees.

Payments for advanced education by the Commonwealth for recent years have been (in \$'000): for current expenditure—1970-71, 754; 1971-72, 887; 1972-73, 1,113; for capital purposes—1970-71, 514; 1971-72, 1,385; 1972-73, 1,175.

Advanced Education Council and College

The Tasmanian *Advanced Education Act* 1968 established an advanced education authority comprising a chairman, vice-chairman and nine other members. In December 1972 an amendment to the Act enlarged the Council by providing for two members of the staff of the Advanced Education Service and one student undertaking a course in advanced education to be elected to Council by their respective bodies, and for the Principal of the College to also be a member of Council; the College Registrar acts as secretary to the Council.

In June 1969 a contract was let for the Resource Materials Centre at the Mt Nelson College and during the 1970-1972 triennium work was done on the Schools of Education and Engineering and Physical Science. The appointment of the necessary staff began in 1971.

During 1972 the Administration and Resource Materials Centre and Department of Art occupied the R.M.C. building at Mt Nelson, whilst most teaching continued to be performed in other locations. From the commencement of 1973 all teaching units, with the exception of Pharmacy, Chemistry and Music, were established at Mt Nelson.

In Launceston, the transfer of responsibility for the Launceston Teachers' College to the Council of Advanced Education provided a nucleus for a campus at Newnham. Accordingly, Science and Technology and Administrative Studies courses moved from temporary accommodation at the Launceston Technical College to the Newnham Campus. Development of this campus during the past year included the completion of a new 'unit type' Hall of Residence, a Gymnasium and the Home Science Block.

At the Mt Nelson campus, the buildings for the Division of Teacher Education and Science and Technology were completed and occupied, and the 600-seat theatre was almost completed.

Courses

During 1973 the academic organisation of the College was re-structured; courses are now offered in six divisions—Administrative Studies, Arts and Design, Music, Science and Technology, Teacher Education (South) and Teacher Education (North). Awards are made at the diploma level, bachelor degree level and, in one course, the master degree level. Two graduate diploma courses are also available. The College no longer includes the School of Dental Nursing.

Advanced Education: Enrolments by Course, 1973
(Number)

Course	Full-time		Part-time		Total	
	Males	Females	Males	Females	Males	Females
Degree Courses—						
Engineering	57	1	97	..	154	1
Education	8	2	..	..	8	2
Pharmacy	31	20	..	3	31	23
Surveying	23	..	3	..	26	..
Total	119	23	100	3	219	26
Diploma Courses—						
Accounting	25	3	216	7	241	10
Applied Chemistry	11	2	41	4	52	6
Architecture	17	2	..	..	17	2
Art	48	64	4	29	52	93
Business Administration	2	1	22	5	24	6
Education	193	632	..	..	193	632
Electronic Data Processing .. .. .	..	..	2	..	2	..
Engineering .. .. .	..	..	23	..	23	..
Environmental Design	83	14	..	..	83	14
Legal Practice	23	5	..	..	23	5
Medical Laboratory Technology	3	3	12	12	15	15
Metallurgy	2	..	10	..	12	..
Music	13	21	..	7	13	28
Public Administration .. .. .	..	..	42	1	42	1
School Art	15	40	..	..	15	40
School Music	10	16	..	..	10	16
Urban Planning	4	1	..	..	4	1
Valuation	6	..	3	..	9	..
Total	455	804	375	65	830	869
Post-graduate Diploma—						
Librarianship	4	15	3	7	7	22
Total	4	15	3	7	7	22
Post-graduate Degree—						
Master of Education .. .. .	..	..	20	10	20	10
Total .. .. .	..	..	20	10	20	10
Total All Courses	578	842	498	85	1,076	927

The next table shows student enrolments for a three year period:

**Advanced Education: Enrolments
(Number)**

Description	1971			1972 (a)			1973		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Full-time ..	137	179	316	416	788	1,204	578	842	1,420
Part-time ..	729	97	826	508	99	607	498	85	583
Total ..	866	276	1,142	924	887	1,811	1,076	927	2,003

(a) The increase in 1972 reflects the inclusion of students previously enrolled at the Hobart and Launceston Teachers Colleges.

University of Tasmania

History

The University of Tasmania was founded in 1890 and was the fourth to be established in Australia. When teaching began in 1893 with three lecturers and six students it occupied four acres of land on the Queen's Domain at Hobart.

Growth of the University was slow for the first half century despite the State's progressive policy in education generally. The Faculties of Arts, Science and Law were established first with Commerce added in 1919 and Engineering in 1922. At the outbreak of World War II, the teaching staff in many departments consisted of one full-time professor or lecturer, possibly with part-time assistants.

After the war, the influx of ex-servicemen filled all Australian universities to capacity and student enrolments in Tasmania rose to 740 in 1947. Financial assistance from both State and Commonwealth Governments enabled the staff to be almost doubled between 1945 and 1950 and energetic research schools developed. A Faculty of Education was established with responsibility for some of the State's teacher training. In 1957 came the Murray Report on the Australian Universities, leading to a significantly increased flow of Commonwealth money into Australian universities. Since 1958 Faculties of Agricultural Science and Medicine have been established.

In 1973 a further major development occurred, when, at the June 1973 Premiers' Conference, the States agreed to the Commonwealth's offer to accept full financial responsibility for tertiary education. In the 1973-74 Budget the Commonwealth announced the abolition of tuition fees from the beginning of 1974.

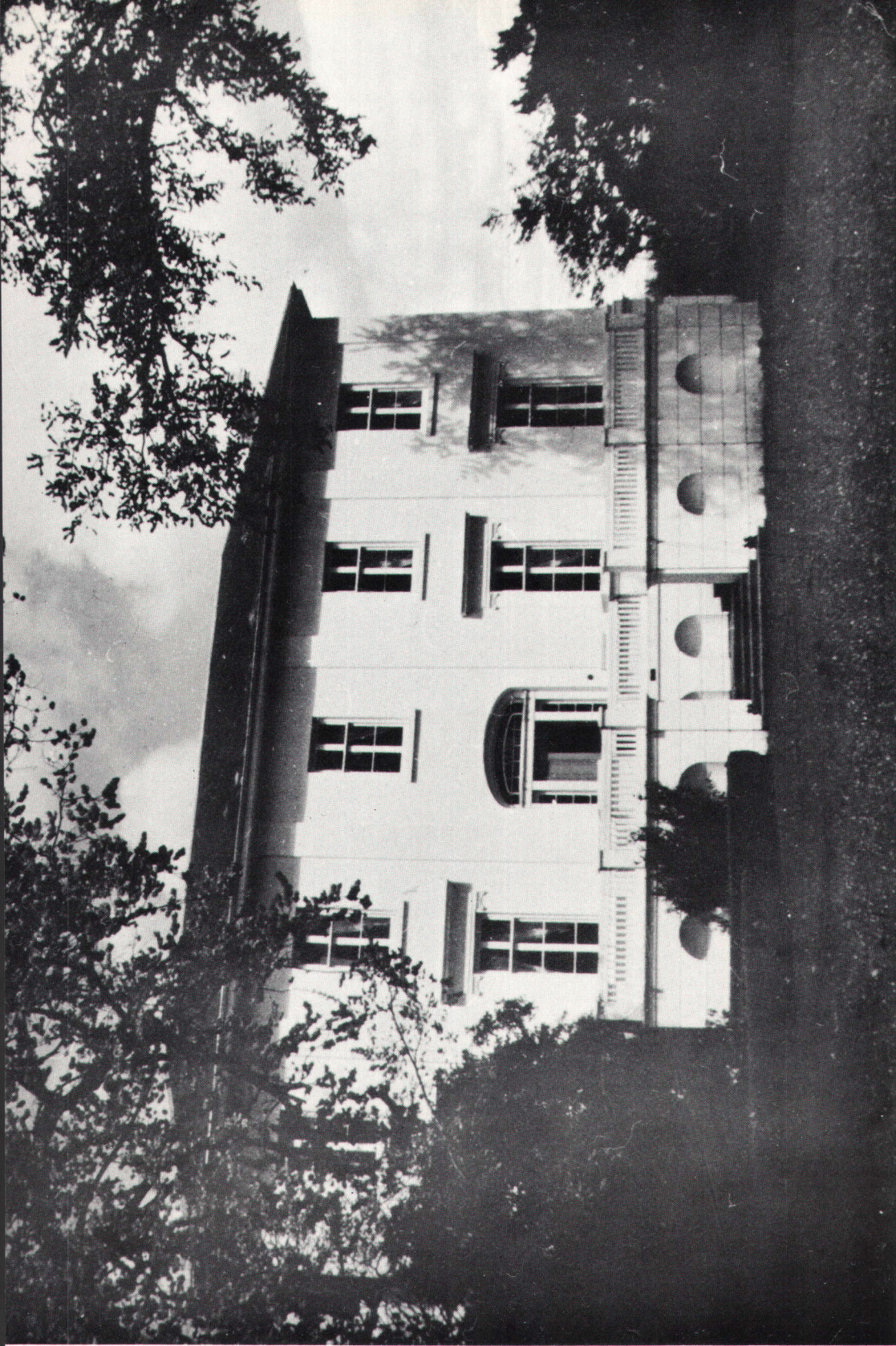
Government of the University

The governing body of the University is the Council, comprising three members elected by the teaching staff, four by graduates, one by undergraduates and two by the two Houses of Parliament; four members are appointed by the Governor, and three appointed by the Governor on the recommendation of the Council. The Director-General of Education and the chairman and deputy chairman of the Professorial Board are *ex officio* members. The Council is presided over by the Chancellor.

The Vice-Chancellor is the chief academic and executive officer. He presides over the Professorial Board which is the governing body on academic matters. Reporting to the Board are the eight faculties.

Finance

The following table shows the income and expenditure of the University of Tasmania for a three-year period:



Clarendon at Clarendon prior to restoration of the portico

[H. Moore]



Fountain, Princes Square, Launceston

[Dept of Film Production]

University Income and Expenditure (a)
(**\$'000**)

Particulars	1969	1970	1971	1972 _p
INCOME				
Government Grants—				
Commonwealth	1,679	2,043	2,237	2,411
State	1,945	2,245	2,516	2,868
Student Fees	686	882	1,062	1,136
Other (b)	311	331	341	203
Total	4,621	5,500	6,156	6,618
EXPENDITURE				
Teaching and Research	3,327	3,970	4,299	4,297
Administration	452	510	600	627
Libraries	335	397	455	535
Other (c)	593	720	872	861
Total	4,707	5,596	6,226	6,319

(a) Excludes receipts for capital purposes and capital expenditure.

(b) Includes donations, accommodation fees for halls of residence, etc.

(c) Includes repairs, alterations, rents, power, light, heating, etc.

Staff and Students

The next table shows the courses in which students were enrolled:

University Enrolments, 1973

Course	Students Enrolled			
	New Enrolments 1973	Total Enrolments		
		Males	Females	Total
Master and Doctor Degrees.. ..	50	168	27	195
Bachelor Degrees—				
Agricultural Science	10	48	17	65
Arts	269	482	591	1,073
Economics	59	301	33	334
Engineering	44	203	2	205
Law	70	182	43	225
Medical Science	} (a) 71 {	2	..	2
Medicine		162	69	231
Science		407	126	533
Total	643	1,787	881	2,668
Non-Degree Courses—				
Education	31	136	122	258
Other (b)	45	90	52	142
Total	76	226	174	400
Total All Courses	769	2,181	1,082	3,263

(a) Students may enrol for an honours degree in Medical Science after completing at least three years of M.B., B.S. course.

(b) Of the 132 students classified as 'other' 20 students were enrolled for a master degree qualifying examination; the remaining 112 were not proceeding to either a degree or diploma of the University.

The following table shows the number of teaching staff and students in selected years:

University Teaching Staff (Full-time) and Students Enrolled

Particulars	1945	1968	1969	1970	1971	1972	1973
Teaching Staff—							
Professors	12	28	30	30	31	33	32
Other	31	141	163	172	189	215	219
Total Teachers ..	43	169	193	202	220	248	251
Individual Students Enrolled	503	2,592	2,830	3,119	3,444	3,371	3,263

Degrees Conferred

The following table shows degrees conferred:

University of Tasmania: Degrees Conferred (a) During Year Ended 30 June

Degree (b)	1967	1968	1969	1970	1971	1972
B.Agr.Sc. Males	5	7	7	11	11	14
Females	..	1	..	..	..	..
B.A. Males	56	65	88	90	110	122
Females	87	104	126	119	126	153
B.Ec. Males	26	33	40	48	42	43
Females	..	2	6	3	4	5
B.E. Males	17	22	28	23	20	26
Females	..	..	..	..	..	..
B.Sc. Males	50	64	76	92	96	89
Females	8	12	27	21	25	22
LL.B. Males	17	18	26	14	13	20
Females	1	1	1	6	7	3
M.A. Males	2	..	2	4	1	4
Females	1	1	1	3	2	1
Ph.D. (Science) .. Males	5	9	8	12	12	4
Females	..	1	..	..	..	..
B.Med. Sc. Males	..	..	..	..	..	19
Females	..	..	..	..	..	6
M.B., B.S. (c) .. Males	..	..	..	16	14	12
Females	..	..	..	2	2	3
M.Sc. Males	3	3	6	3	1	1
Females	..	..	..	..	..	..
Other Males	1	4	6	5	5	7
Females	..	..	..	..	2	1
Total Males	182	225	287	318	325	361
Females	97	122	161	154	168	194

(a) Excludes honorary degrees.

(b) Bachelor degrees include bachelor degrees with honours.

(c) Medical graduates.

Residential Colleges

There are five residential colleges in the University. Christ College was affiliated with the University in 1933, moved to new premises on the University Campus at Sandy Bay in 1962 and provides accommodation in single study-bedrooms for 140 male and female students, eight tutors and a deputy warden. Hytten Hall was opened in 1959 accommodating 124 students. Extensions have raised this figure to 193 male students with 79 accommodated in single study-bedrooms and the remainder in double rooms. St John Fisher College, opened in 1962, accommodates 83 male students in single study-bedrooms and is under the direction of the Catholic Church. Jane Franklin Hall was founded by the Tasmanian Council of Churches in 1950 as a hall of residence for women students. The hall provides accommodation for 150 students. Ena Waite Women's College was founded in 1968 and accommodates 24 female students.

Buildings

The present University site at Sandy Bay was chosen in 1944 and a number of army-type huts were erected to accommodate temporarily the rapidly growing science departments. The first permanent building at Sandy Bay was occupied in 1957; all departments are now housed in permanent buildings.

Completed in 1973 were: major extensions to the Chemistry Building, including a central science laboratory; the Biomedical Library, which houses agricultural science, botany, zoology and medical sciences collections; and the Law Building.

Major projects for 1974 are: the first stage of a gymnasium; extensions to the Clinical School and the Arts-Commerce-Education Building; Computer Centre; Cosmic Ray Observatory; and a multi-purpose lecture theatre complex, which, in addition to lecture theatres, will provide for a wide range of cultural and other activities.

Technical Education

The Education Department administers Technical Colleges at Hobart, Launceston, Devonport, Burnie and Queenstown which provide trade, technical and sub-professional technician courses. Some students also receive tuition at Rosebery and Smithton using the high school facilities. Technical College courses cater for students who are above the age of compulsory school attendance.

Courses

Certificate Courses: These courses cater for middle level vocations that lie between trades and professions. They are designed in consultation with industry to meet the increasing need for sub-professional personnel who are performing many tasks previously carried out by university graduates or diplomates. On successful completion of a course, a certificate is awarded by the Education Department. Courses provided include drafting, engineering, surveying, architecture, building, commerce, business studies, marketing and food services.

Trade Courses: These courses combine theoretical and practical aspects of the trade, and are complementary to employer training given to apprentices. From 1965 apprentices have been required to attend one full day per week for three years and this has practically eliminated evening classes for apprentice training. Since 1968 a system of block training has operated in respect of a number of trades and for apprentices previously taught by correspondence. During the year, periods of two weeks are spent in full-time study in a technical college. On successful completion of the course a Certificate of Trade Proficiency is awarded. Post-trade courses are available to extend the skill and knowledge of the tradesmen.

Correspondence Tuition: This is administered through the Hobart Technical College and is intended for isolated students. Many apprentice correspondence courses have been replaced by the system of block training.

Enrolments

The total enrolment in technical colleges during 1972 was 7,234. Enrolment distribution was: Hobart Technical College, 53 per cent of total enrolments; Launceston, 24 per cent; Burnie, 10 per cent; Devonport Technical College, 10 per cent; and Mount Lyell School of Mines and Industries, 3 per cent. Distribution of persons enrolled between courses was: trade and post-trade courses, 46 per cent of total enrolments; certificate and post-certificate courses, 43 per cent; and miscellaneous subjects, 11 per cent. Of the total number of students enrolled 75 per cent were males.

College Councils

Each technical college has a council comprising local community representatives who have been appointed by the Governor. Members are drawn from trades and industries, professions and municipal councils. They advise the Director of Technical Education on the provision and development of college facilities and courses.

Examinations

These are conducted by the Education Department in November each year. Papers are set and marked, or assessments carried out on a State-wide basis except for the first and second year trade subjects in which case each college makes its own arrangements.

Technical Teachers, Students and Expenditure

The following table shows the number of schools, teachers and students in technical education and the yearly expenditure:

Technical Education: Teachers, Students and Expenditure

Particulars	1968	1969	1970	1971 (a)	1972 (a)
Schools, Colleges, etc. no.	9	9	9	7	5
Teachers—Full-time.. no.	181	186	199	189	172
Part-time no.	710	627	676	565	394
Students, Aggregate (b) no.	8,296	8,336	8,278	6,849	7,234
Expenditure (c) .. \$'000	1,375	1,764	2,025	2,366	2,607

(a) Excludes details for diploma courses provided as a part of the advanced education system.

(b) Gross number enrolled during the year.

(c) Excludes capital expenditure on new buildings, etc.

Adult Education*Origin and Organisation*

Establishment of a mechanics' institute in Hobart in 1827 was the start of adult education in Australia. The mechanics' institute movement which was then just three years old (there were only two other institutes at that time: in London and Glasgow) was the fore-runner of the present adult education organisation in Tasmania which began in 1914. One part-time tutor was appointed and three classes started in 1914 with support for the new system coming from the University of Tasmania and the Workers' Educational Association. Financial assistance was given by the State Government.

The present Adult Education Board was established under the *Adult Education Act 1948*. The Board has nine members. Three of these are nominated by the Minister for Education and one each nominated by: University of Tasmania; the State Library Board; the Workers' Educational Association; the Arts Council; the Australian Broadcasting Commission; and the Education Department. In addition the Board has a Director, five Regional Directors, Community Arts Director, three Adult Education Officers and a Principal.

Hobart has three Adult Education Centres, at the Domain, South Hobart and North Hobart; as well as an enquiries and enrolment centre in the central city. Domain House Adult Studies Centre is a newly restored class complex and community centre in a building which once housed the University of Tasmania. Launceston has two centres, while Devonport and Burnie each have one. 'The Grange', a National Trust home at Campbell Town (south of Launceston), is the Board's residential college.

Operations

Courses: Courses are run throughout the year and vary in duration from one term to three terms. The 989 courses offered in 1972 attracted 11,624 students and required 319 part-time tutors. The range of courses included the arts, practical crafts, homecrafts, languages, physical education, liberal studies and social service courses. The Board, in co-operation with the University of Tasmania, arranges courses in Launceston for external students and, in conjunction with the Commonwealth Department of Immigration, courses in intensive advanced English for migrants are run in Hobart.

Special Lectures: Visitors from other States and overseas deliver lectures during each year. One of the most important events of the Adult Education year is the Sir John Morris Memorial Lecture. (Each year an Australian who has achieved world stature in a particular field is invited to deliver this lecture, instituted by the Adult Education Board as a memorial to Sir John Morris, its first chairman, who died in 1956.)

Residential School: The Grange residential college has been leased from the National Trust since 1964. Built in 1848, The Grange is an elegant colonial country house used for both week-end schools throughout the year and week-long summer schools during the Christmas-New Year vacation. The house offers accommodation for 27 students.

Drama: Assistance is given to more than 30 amateur drama groups throughout the State to assist in raising standards of acting and production.

Book Discussion Groups: Nearly 40 of these groups throughout the State meet regularly each month to discuss specially chosen books, mainly novels.

The following table shows the annual receipts and expenditure on selected items for a five-year period:

Adult Education: Selected Receipts and Expenditure
(Source: Annual Reports of the Auditor-General)
(\$)

Item	1967-68	1968-69	1969-70	1970-71	1971-72
RECEIPTS					
State Government Grant ..	145,000	148,000	158,000	183,700	188,000
Student Fees ..	46,333	50,189	55,074	64,029	75,704
Concert Tours, Film Screenings, Lectures, etc. ..	24,790	18,077	35,751	21,116	23,127
Other ..	2,569	3,349	4,717	2,990	6,052
Total ..	218,692	219,615	253,542	271,835	292,883
EXPENDITURE					
Salaries ..	101,917	104,781	109,788	134,591	143,045
Tutors' Fees, Allowances ..	41,458	45,304	50,304	53,912	60,721
General Administration ..	34,926	34,832	45,314	34,293	47,026
Schools, Seminars and Exhibitions ..	16,707	22,130	15,017	18,813	31,401
Visiting Artists ..	11,354	1,739	12,997	14,326	82
Other ..	12,332	9,922	9,914	19,251	13,880
Total ..	218,694	218,708	243,334	275,186	296,155

Commonwealth Activities in Education

Introduction

Traditionally education has been a concern of the States; however, in 1945 a Commonwealth Office of Education was established and a branch was opened in Hobart. The principal functions of the Tasmanian branch were migrant education and administration of Commonwealth University Scholarships. In 1951 the Hobart office was closed, and its functions transferred to the State, which acted as an agent for the Commonwealth. A growing commitment by the Commonwealth to education led to a re-opening of the Hobart office in 1964. However, despite increased Commonwealth financial assistance to educational institutions and students, education remains primarily the responsibility of the State Government.

Commonwealth activities in education include financing universities, colleges of advanced education, teachers colleges, and grants for technical training, science and library facilities at government and non-government secondary schools, per-capita grants to non-government schools and assistance for research. Commonwealth Scholarship Schemes provide assistance for students undertaking secondary, technical, tertiary and post-graduate studies. Two schemes of assistance for Aboriginal students have been established in recent years. Developments in 1973 were the introduction of schemes to assist pre-school teacher trainees and children living in remote areas and the re-structuring of scholarship assistance for pupils at the senior secondary level. From 1 January 1974, the Commonwealth Government assumed responsibility for the total financing of tertiary education.

Educational Committees

During the first half of 1973 a number of educational committees were established by the Commonwealth Government:

Interim Committee for the Australian Schools Commission (Karmel Committee): Pending the establishment of the Australian Schools Commission, this Committee was set up to examine the position of both government and non-government primary and secondary schools in all States, the A.C.T. and the Northern Territory. Its terms of reference included making recommendations as to the immediate financial needs of schools, priorities within those needs, and appropriate measures to assist in meeting those needs. The report of this Committee was released in May 1973, and its recommendations are in respect of the years 1974 and 1975, after which time the Australian Schools Commission will make further recommendations.

Australian Pre-school Committee: Pending the establishment of the Australian Pre-schools Commission, this Committee was set up to examine and make recommendations as to the measures which the Commonwealth Government should adopt to ensure that over a period of approximately six years all children are given an opportunity to undertake a year of pre-school education, and that child-care centres for children below school age are established to meet the needs of children of working parents and underprivileged families.

Australian Committee on Technical and Further Education: This Committee will also become a Commission. It will advise the Commonwealth Government on the development of technical and further education and will make recommendations for financial assistance to State technical and further education institutions. This assistance will begin in July 1974.

Capital Aid for Schools Programme

Under the *Federal States Grants (Schools) Act* 1972 grants totalling \$215m were made available for school construction. Of the total, \$167m was for government schools and \$48m for non-government schools. After 30 June 1974 the balance of the funds available for non-government schools will be distributed according to recommendations made by the Australian Schools Commission. During 1973-74 the distribution to Tasmanian schools will be government schools, \$1.32m and non-government schools, \$0.21m.

Curriculum Development

While State education departments are responsible for the development of the curricula followed in their schools, the Commonwealth Government is prepared to consider support for curriculum development proposals put forward by the States. Three such proposals currently receiving Commonwealth Government support are:

- (i) *Australian Science Education Project:* Is developing science learning materials for the first four years of secondary education. Commonwealth contribution to the project is \$875,000 and the States contribute \$525,000 over the five-year period ending in 1974.
- (ii) *National Committee on Social Science Teaching:* Was established in 1970 as a joint Commonwealth-State project to help foster development and improvement in the teaching of social sciences.

- (iii) *Asian Languages and Cultures*: In 1972 the Commonwealth Government agreed to contribute \$1.5m over five years to a joint Commonwealth-State programme to develop this area of education. A joint Commonwealth-State committee has been established to co-ordinate the programme.

Curriculum Development Centre: In June 1973 the Commonwealth Government announced the establishment, in co-operation with the States, of a curriculum development centre to undertake and promote curriculum development and to develop and assess teaching aids. The centre will be financed by the Commonwealth Government.

The following table shows the amounts paid by the Commonwealth Government for education in Tasmania over a three-year period:

Commonwealth Payments for Education in Tasmania
(£'000)

Particulars	1969-70	1970-71	1971-72
RECURRENT EXPENDITURE			
Universities	1,504	1,818	2,105
Colleges of Advanced Education	397	754	887
Research Grants	182	202	131
Aboriginal Advancement	7	7	5
Per Capita Grants, Non-Government Schools	286	556	660
Total	2,376	3,337	3,788
CAPITAL EXPENDITURE (a)			
Universities	757	429	665
Colleges of Advanced Education	677	514	1,385
Teachers Colleges—Primary and Secondary	250	100	650
Pre-School	120	..	..
Science Laboratories—Government Schools	82	390	248
Non-Government Schools	174	174	167
Technical Training	376	325	380
School Libraries—Government Schools	65	355	299
Non-Government Schools	74	125	67
Total	2,575	2,412	3,861
SCHOLARSHIP ALLOWANCES (a)			
Commonwealth Scholarships—Post-graduate	97	114	141
University	555	694	785
Advanced Education	43	49	80
Secondary	190	187	183
Technical	33	28	21
Soldiers' Children Education Scheme (b)	141	152	..
Aboriginal Secondary School Grants .. .. .	..	6	16
Aboriginal Study Grants	1	4	3
Total	1,060	1,234	1,229
TOTAL EXPENDITURE			
All Items	6,011	6,983	8,878

(a) Excludes grants made under the Commonwealth Child Migrant Education Programme which are not available on a State basis.

(b) Includes payments to eligible children before their admission to the scheme as reimbursement for books, school requisites and fares.

University of Tasmania

In the triennium 1973-1975, proposed Commonwealth payments to the University of Tasmania are \$22.89m, comprising \$3.57m for capital costs, \$18.45m for recurrent expenditure and \$69,000 in special grants. Further grants will be available to meet the cost of increases in academics' salaries.

Colleges of Advanced Education

For the 1973-1975 triennium, \$19.9m has been allocated for the Tasmanian College of Advanced Education. The allocation comprises \$12.0m for recurrent expenditure and \$7.8m for capital purposes and \$0.1m for library materials. The following table shows a summary of Commonwealth Government payments for advanced education in Tasmania:

Commonwealth Government Payments for Advanced Education in Tasmania
('\$000)

Expenditure	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent	222	397	754	887	1,113
Capital	69	677	514	1,385	1,175

Technical Training Facilities

Commonwealth grants are made to extend and improve facilities for training apprentices and technicians. During the triennium 1971-72 to 1973-74 annual grants of \$380,000 are being made to Tasmania. Under the *Commonwealth States Grants (Technical Training) Act* the Commonwealth Government made available an additional \$10m for 1973-74 of which \$309,000 was allocated to Tasmania.

Science Facilities

Commonwealth grants have been made since July 1964 to assist in the construction and equipping of science teaching facilities in government and non-government schools. The total planned distribution for the four years ending 30 June 1975 is: government schools \$990,660; and non-government schools, \$668,630.

Commonwealth Pre-school Teacher Education Allowances

In 1973 the Commonwealth Government introduced an assistance scheme for all students enrolled in pre-school teacher education courses. Allowances are free of a means test and comprise a living allowance and payment of all compulsory fees.

Secondary School Libraries

In August 1968, the Commonwealth commenced a programme which provided \$27m in the 1969-1971 triennium for the development of Australian secondary school libraries. The funds were available for: (i) the erection, alteration or extension of library buildings; and (ii) the provision of furniture, equipment and a basic stock of books and instructional materials. The allocation for Tasmania for each year of the 1969-1971 triennium was \$290,900 comprising: (i) government schools \$216,200; (ii) Catholic schools \$43,200; and (iii) other non-government schools \$31,500.

In December 1971 the secondary school libraries scheme was extended for a further three years (from 1 January 1972 to 31 December 1974). Funds available for the period are \$30m, and Tasmania's annual allocation is \$352,241 comprising: (i) government schools, \$285,506; (ii) Catholic schools, \$48,462; and (iii) other non-government schools, \$18,273. The Commonwealth is also making grants available for the training of school librarians. The funds are advanced to State education departments, school library associations and similar organisations.

Lady Gowrie Child Centre

One Centre was established in each State Capital by the Commonwealth Government in 1940. Lady Gowrie Child Centres were intended to be demonstration and research centres for medical and educational purposes. The Hobart Centre enrolls children aged from three to six years and is used for observation by education, medicine, psychology, home science and nursing students. In 1973-74 the Commonwealth Government will be providing at least \$43,500 towards the cost of the Hobart Centre.

Per Capita Grants to Independent Schools

From the beginning of the 1970 school year, the Commonwealth has provided per capita grants to independent schools throughout Australia, including special schools for the handicapped. Rates during 1973 were: \$62 for each primary school student and \$104 for each secondary school student. Expenditure in Tasmania in 1973 was approximately \$1m.

In 1973 the Interim Committee for the Australian Schools Commission recommended that from 1974 grants be awarded to non-government schools on the basis of a grading system based on a needs concept. (This replaces the per capita system previously used to calculate grants for non-government schools.) The Commonwealth Government accepted this recommendation.

Child Migrant Education Programme

Under the child migrant education programme, which commenced in April 1970, the Commonwealth Government is financing the following items for both government and non-government schools: (i) the salary costs of teachers and supervisory staff who are engaged in teaching English to migrant pupils; (ii) the provision of approved language teaching equipment; (iii) the provision of appropriate teaching and learning materials; (iv) special training courses for teachers in the methods of teaching English as a foreign language; and (v) the provision of emergency classroom accommodation for the financial years 1973-74 and 1974-75.

For children from Tasmanian government schools, full-time centres have been established in Hobart and Launceston, with part-time centres at George Town, Queenstown, Rosebery, Strathgordon and Burnie. One non-government school in Launceston also has special classes for migrant children.

Total expenditure on the child migrant education programme in 1972-73 was about \$5.1m.

Adult Migrant Education Programme

For many years the Commonwealth Government has provided adult migrants with the opportunity to learn English and also something of the Australian way of life. This has been done mainly through part-time evening classes, and to a lesser extent through radio and correspondence courses.

The programme commenced in 1947 and since 1951 has been a joint effort by the Commonwealth Government and the States. At the present time, following a series of agreements reached between the Commonwealth and the States in 1951, the Commonwealth Government retains overall responsibility for the programme while administrative control of migrant teaching activities is in the hands of the States.

Recent developments in the programme have been the establishment of full-time courses and the payment of a living allowance to students attending these courses. During the 1972-73 financial year the total expenditure on the adult programme in Australia was just over \$3m.

In June 1973, 12 migrant continuation classes were operating in Tasmania for 117 students. A further 89 students were enrolled in the correspondence course. Also during 1972-73 one intensive English course for 17 students was conducted.

Assistance for School Children Living in Remote Areas

In 1973 the Commonwealth Government introduced a scheme of financial assistance to enable children living in isolated areas to have improved educational opportunities. Benefits are available for pupils who must live away from home to attend school and those studying through State Education Department correspondence schools. At 30 June 1973 there were 995 Tasmanian students receiving this assistance.

Commonwealth Scholarship Schemes

Commonwealth University Scholarship Scheme: This scheme provided assistance to students taking approved degree courses at an Australian university. Selection was based upon results obtained in Tasmania in the Higher School Certificate examination or in an approved degree course. In Tasmania, approximately 400 awards were made in 1973. Benefits included the payment of all compulsory fees and, subject to a means test, a living allowance of up to \$800 per annum for a student living with his parents, or up to \$1,300 for a student living away from home.

Commonwealth Advanced Education Scholarship Scheme: Under this scheme assistance was provided to those taking approved tertiary level courses in Australia. Selection in Tasmania was based on results obtained in the Higher School Certificate examination in an approved course or in some cases on other criteria determined by individual institutions. Approximately 215 awards were made in Tasmania in 1973. Benefits were the same as those payable under the Commonwealth University Scholarship Scheme. Under both schemes, a guidance service was provided by the Commonwealth Department of Education and Science.

Commonwealth Technical Scholarship Scheme: An annual quota of approximately 80 scholarships was available to Tasmanian students to assist them with approved full-time or part-time courses, mainly at certificate or technical level and in approved full-time diploma courses in art, music and agriculture. Benefits for full-time students comprised a \$200 living allowance and a textbook allowance of \$50 both free of means test, and reimbursement of compulsory fees up to a maximum of \$150. Part-time students received \$100 per annum plus payment of compulsory fees up to \$100.

From the beginning of 1974 these three schemes were replaced by a scheme of means-tested allowances which provide assistance on a non-competitive basis to full-time students in approved tertiary and post-secondary courses. This measure is part of a new programme under which the Commonwealth Government assumed full responsibility for financing tertiary education and which also involved the abolition of compulsory tuition and associated fees.

Commonwealth Senior Secondary Scholarship Scheme: In 1973 this scheme was introduced to replace the Commonwealth Secondary Scholarship Scheme. Each year approximately 750 Tasmanian secondary school students are awarded a two-year scholarship to assist them with study for the Higher School Certificate examination. Benefits comprise a basic allowance, free of a means test, of \$150 per annum and a further allowance, subject to family income, of \$250 per annum.

Commonwealth Post-Graduate Awards: Awards are made annually to enable students to undertake post-graduate studies at an Australian university. In 1973 15 new awards were made available for research studies. Selection is made by each university and the award, subject to annual renewal, may be held for a maximum of: (i) four years in the case of a doctorate degree candidate; (ii) two years in the case of a master degree scholar; and (iii) for the duration of the course taken (normally one or two years) for course work awards. Award holders receive a living allowance of \$2,900 per annum and provision is made for assistance with travel, establishment and thesis costs. Married male scholars receive a dependant's allowance for wife and children.

Aboriginal Grants Scheme: The Department of Education administers, on behalf of the Department of Aboriginal Affairs, two assistance schemes for students of Aboriginal descent: (i) the Aboriginal Study Grants Scheme; and (ii) the Aboriginal Secondary Grants Scheme.

Aboriginal Study Grants were first awarded in 1969. They assist Aborigines to take study courses after leaving school and provide the full-time student with fees, a living allowance of \$1,100 a year and other allowances. Part-time students receive fees and incidental expenses.

The Aboriginal Secondary Grants Scheme was introduced in 1970 to assist students to continue schooling beyond the age of 14. Benefits cover annual living costs, fees and other allowances. In 1973 the lower age limit was removed and assistance was extended to all Aboriginal pupils enrolled in secondary schools.

Students in Commonwealth Scholarship Schemes: The next table shows the number of students holding each type of Commonwealth Scholarship in Tasmania at 30 June:

Number of Students at 30 June, Tasmania: Commonwealth Scholarship Schemes

Particulars	1969	1970	1971	1972	1973
University	627	788	865	916	920
Advanced Education ..	106	150	174	220	359
Technical	137	145	124	97	108
Secondary	544	558	559	560	274
Senior Secondary .. ..	..	..	..	..	739
Post-graduate	33	38	46	52	52
Aboriginal Secondary ..	..	3	8	32	140
Aboriginal Study .. ..	..	2	1	3	7
Other (a)	6	25	30	32	55
Total	1,453	1,709	1,807	1,912	2,654

(a) Includes National Service Vocational Training Scheme, Commonwealth Teaching Service, Pre-School Teacher Trainees (from 1973) and Australian Agricultural Council Scholarships.

International Scholarship Schemes

Students come to Australia to study under a variety of schemes, e.g. the Colombo Plan, the Special Commonwealth African Assistance Plan, the Australian International Award Scheme, the South Pacific Aid Programme, SEATO, UNESCO, Commonwealth Co-operation in Education, etc.

The number of sponsored students receiving training in Tasmanian educational institutions is shown in the table below. Training is arranged, usually on a full-time basis, with the University of Tasmania, the Tasmanian Education Department, non-government schools, government departments, and industry. In addition to long-term sponsored students, short-term visitors have also been brought to the State for periods of up to one year for specialised experience in educational, industrial, commercial, technical, or scientific fields.

The Department of Education arranges reception, accommodation, travel and payment of allowances for all sponsored students and also makes arrangements for their training. Professional guidance on academic matters is provided by education officers for all overseas students, both sponsored and private.

Sponsored Training Statistics: The majority of full-time sponsored students, as the next table shows, come to Tasmania under the Colombo Plan:

Number of Full-time Sponsored Students

Scheme	1968	1969	1970	1971	1972	1973
Colombo Plan	106	79	87	101	100	103
Home Government Sponsored (Malaysia) ..	4	8	13	12	8	6
M.A.R.A. (Malaysia) ..	5	8	11	15	23	14
Other	4	8	3	3	3	4
Total	119	103	114	131	134	127

Enrolment: In 1973 106 full-time *sponsored* students were enrolled at the University of Tasmania, 18 students were studying for the Higher School Certificate and three were enrolled in other courses. The most popular bachelor degree courses for sponsored students in 1973 were: Engineering, 47; Science, 13; Medicine, 16; and Commerce, 9.

Other Scholarship Schemes

The Department of Education plays a role in the administration of the following scholarship schemes: ANZAC Fellowships; Australian Agricultural Council Scholarships; Australia-American Education Foundation Awards; Confederation of British Industry Scholarships; and various scholarships offered to Australians by overseas governments.

STATE LIBRARY OF TASMANIA

General

The present State Library Service dates from the *Libraries Act* 1943. This legislation made provision for: (i) establishment of a State Library; (ii) constitution of a Tasmanian Library Board which would be responsible for management and development of library services in the State; and (iii) co-ordination of various library services then subsidised by the State Government. The system now has major libraries in three centres: Hobart, location of the principal library and headquarters for the library service; Launceston; and Burnie. In addition branch libraries are located in a number of smaller towns.

The next table gives selected statistics for the State Library of Tasmania:

State Library of Tasmania: Selected Statistics

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
EXPENDITURE (\$'000)					
Salaries and Pay-roll Tax ..	351	401	483	573	727
Purchase of Books, etc. for					
Adults	153	174	208	235	294
Lady Clark Library ..	38	35	49	69	70
Grants to Municipalities ..	39	44	55	29	..
Other	78	84	101	104	207
Total Expenditure ..	660	737	896	1,011	1,298
BORROWINGS: BOOKS, FILMS AND RECORDS ('000)					
Books Borrowed—					
Adults	2,147	2,163	2,260	2,317	2,299
Children	1,170	1,206	1,240	r 1,319	1,343
Total	3,317	3,369	3,500	r 3,636	3,642
Films Borrowed	12	12	17	13	13
Records Borrowed	30	37	49	51	105

Receipts

An annual appropriation is made from the Consolidated Revenue Fund to cover the operational expenses of the State Library. The 1972-73 vote was \$1,298,000. The next main revenue item is local government contributions.

Organisation

Currently library services are administered from three centres (Hobart, Launceston and Burnie). The following sections outline the facilities provided from each centre.

Hobart

Hobart, headquarters of the State Library, is the location for the following major State Library departments:

State Reference Library: Provides reference and information facilities for the general public and industry, and contains a bookstock of approximately 151,700 books, periodicals, pamphlets, maps, etc. Special sections of this department house unique collections of books, documents, etc. relating to Tasmania. Collections include: (i) the *Tasmanian Collection*—a definitive collection of books published in Tasmania; (ii) the *W. E. Crowther Library*—a large research collection of books, pamphlets and other items relating to Tasmania and Australia; and (iii) the *Allport Library and Museum of Fine Arts*—comprises a collection of antique furniture, china, glass, silver, pictures, prints and rare books in fine editions.

Archives Office: The *Archives Act* 1965 made this library department the official repository for all official State Government records. A considerable quantity of private records of individuals, companies, associations, societies and institutions is held as well as official records.

Hobart Lending Library: Provides a book lending service for adults and children. Approximately 119,000 volumes are held in this collection.

Films and Recorded Music Library: Contains over 4,600 films and almost 20,000 gramophone records. Films and records are available for borrowing by individuals or organisations.

Division of External Services: This department co-ordinates the provision and development of public library services throughout the State.

In 1972 the second stage of the State Library building complex was completed. The new 11-floor building permitted centralisation of library activities and created additional storage capacity.

Launceston

Headquarters of the Northern Regional Library Service are located at the new Launceston regional library building which was opened in mid-1971. The Northern Regional Library Service serves the City of Launceston and the Municipalities of Beaconsfield, Deloraine, Evandale, George Town, Lilydale, Longford, St Leonards, Scottsdale and Westbury. Twelve branch libraries are located in small towns of the region; rural areas are served by two bookmobiles.

Burnie

The Hellyer Regional Library Service comprises the Municipalities of Burnie, Circular Head, Penguin, Waratah and Wynyard and was inaugurated in 1965. A central library for the regional service is located at Burnie. Reference, lending, bookmobile and external services are provided for the region. A new regional library headquarters building is under construction at Burnie.

THE NATIONAL TRUST OF AUSTRALIA (TASMANIA)

The following article was based upon information supplied by Dr C. Craig

Establishment of the National Trust

Formation of a Tasmanian branch of The National Trust owes much to the efforts and interest of Dr and Mrs C. Craig and Mr and Mrs R. M. Green. The actual event, which led to establishment of The National Trust of Australia (Tasmania), occurred in early 1960 when Mrs C. Craig was carrying out research for the book, *Early Homes of Northern Tasmania* by E. Graeme Robertson and E. N. Craig. During research Mrs Craig found, in the *Launceston Advertiser* of 31 October 1839, an advertisement which read, in part:

'TO BE LET, SOLD, OR EXCHANGED FOR LAND

That newly-erected and genteel Family Residence 45 ft by 30 ft the property of the undersigned and situate at Franklin Village.

The ground floor contains hall, two front parlours fitted up with grates marble mantle pieces etc. and two back parlours or bed rooms.

The first floor has in front a dining room, the full length of the house, divided by panelled partitions (removable) into three excellent rooms—at the back two good sized bed rooms.

The Offices consist of kitchen with flagged floor, and oven, store room, coach house, four-stall stable, with lofts for servants etc. over the whole; yards; garden and ground, meadow and so on.

The premises are fitted, up and have all appurtenances fit for the reception of a respectable family and are finished without regard to expense,

For particulars apply to Messrs Gleadow and Henty, Solicitors, Mr J. C. Underwood, Auctioneer; or BRITTON JONES. Franklin Village, August 1839.'

From the description Mrs Craig believed that the home in question was one of two existing Georgian houses at Franklin Village, about four miles south of Launceston on the highway to Hobart. Mrs Craig and Mrs Isabella Mead, formerly curator of the Queen Victoria Museum, decided to inspect the two homes. The first one inspected, on the west side of the highway and formerly the *Sir William Wallace Inn*, did not match the sale notice. The second, *The Hollies* (on the opposite side of the road), was then visited. The owner, Mr T. Poole, was at first reluctant to allow inspection, however, when shown a copy of the 1839 advertisement his interest was aroused and he agreed to show the two ladies through the house. The inspection convinced Mrs Craig that this was the home in question. Final proof was obtained when the original deeds to the property were examined and they showed that the property had belonged to Britton Jones.

Mrs Craig then inquired whether the present owner was prepared to sell the property and was later informed that he would sell for \$12,000. The problem was then to find a buyer who would purchase and restore the old home. One of those approached was Mr R. M. Green, a solicitor, who suggested that a more practical approach was the formation of a National Trust to buy and restore the building. This proposal was investigated, the National Trusts in Victoria and New South Wales consulted and the decision made to establish a National Trust in Tasmania. A memorandum and articles of association were prepared and application was made for a certificate of incorporation of a limited company—National Trust of Australia (Tasmania) Limited. The certificate of incorporation under the *Companies Act* 1953 was issued on 29 April 1960 giving Tasmania a National Trust. Later, permission was obtained to drop the word 'Limited' from the Trust's title.

The inaugural meeting of the Trust, held on Saturday 14 May 1960 at the home of Mr and Mrs R. M. Green, was attended by 29 persons. At this meeting a plan for financing the purchase and restoration of *The Hollies* was outlined:

- (i) a first mortgage on *The Hollies*;
- (ii) a loan of \$5,000 to \$7,000 guaranteed by members; and
- (iii) an approach to the State Government for an interest free loan of \$10,000.

The final amount asked for by the owner of *The Hollies* was \$10,000 and at the inaugural meeting the decision to purchase was unanimous.

At the second meeting of the Trust on 9 June 1960 it was announced that finance for *The Hollies* project had been arranged and that the State Government would grant a \$10,000 interest free loan to the Trust. The option to purchase *The Hollies* was taken up. However, it soon became apparent that more land was required—Dr Geraldine Archer offered to buy land to the value of \$6,000 and sell it to the Trust when funds were available. Shortly after this the State Government gave a further \$10,000 and this enabled the Trust to transform part of the building into a caretaker's flat and part into a tea room.

Restoration of Franklin House

The Hollies was renamed *Franklin House* by the Trust. The house's most notable period was from 1842-1857 when it was used as a school for young gentlemen by Mr W. K. Hawkes. The house is now much as it was when he occupied it.

Examination of the building's foundations revealed that they were solid and the Trust decided to proceed with the restoration work. The Trust intended to demonstrate, to those who advocated demolition of the home, that providing a structure's foundations are solid the building can be restored. *Franklin House* slowly emerged from its state of disrepair and was opened on 28 October 1961.

Growth of the National Trust

Regional Committees

Restoration of *Franklin House* stimulated interest in the National Trust and provided the basis for expanding the organisation. In May 1962 a Southern Regional Committee was formed and this was followed by the establishment of a North-Western Regional Committee in September of the same year.

Each of the three regional committees (Northern, Southern and North-Western) has 21 members who retire each year but are eligible for re-election. Regional committee members comprise the National Trust's Council.

Northern Historical Committee

The late Mrs Isabella Mead was responsible for establishing this committee. Amongst the valuable contributions to the Trust made by the Committee have been: (i) the classification of buildings in northern Tasmania; (ii) restoration of the chapel at Deddington; (iii) the writing of *The History of Campbell Town* which was published by the municipal council.

Appointment of a Minister in Charge of the Trust

In 1962 the State Government recognised the valuable work which the Trust was undertaking and appointed The Hon. R. F. Fagan, the then Attorney-General, as Minister in Charge of the Trust. Mr Fagan made valuable contributions to the Trust and assisted with obtaining finance for several of the Trust's early projects (e.g. restoration of *Franklin House*, purchase of *Runnymede* and restoration of *Clarendon*).

Formation of National Trust Groups

Acquisition of *The Grange* at Campbell Town made it advisable to form a Midlands Group to look after it. This was the first National Trust group—each group is in effect a sub-committee of the regional committee. Their main duty is to look after the National Trust's interests in local areas. Groups now exist in most areas e.g. George Town, Flinders Island, Battery Point, Oatlands, Derwent Valley, Brighton, East Coast, Circular Head, etc.

Preservation Orders

The *Hobart Corporation Act 1963* and *Launceston Corporation Act 1963* both incorporated provisions for the two City Councils to issue preservation orders to prevent the demolition of any building of historic, architectural or of other special interest to the community. In 1968 these powers were extended to all local government authorities. However, the only council to make much use of these legislative provisions has been the Launceston City Council which placed a preservation order on each building then classified 'A' by the Trust.

Formation of an Australian Council

Although each State National Trust uses the same title (except for the State's name which appears in brackets) each Trust is in fact a separate body. To co-ordinate activities on a national and international level the various State National Trusts decided, in 1964, to form an Australian Council of National Trusts. An inaugural meeting of the Council was held in Canberra on 7 February 1965. As a result of submissions by the Australian Council of National Trusts the Commonwealth Government agreed that donations of cash to the Trusts should be free of

income tax, and that bequests should be free of probate duty. By an extension of this permission the Trust has been able to receive money donated to appeals for the restoration of suitably classified buildings, e.g. churches. These donations are thus also free of income tax. Recently the Council obtained a grant of \$50,000 from the Commonwealth for special restorations. It is from this fund that \$35,000 is to be made available for the restoration of the portico and parapet at *Clarendon*.

Finance

Apart from grants and loans from the State Government for the purchase of historic buildings the Trust relies heavily upon its own fund raising efforts for the general running expenses of the Trust. Committees of the Trust arrange and run balls, fairs, exhibitions, visits to famous houses, etc. to raise the necessary funds. The only salaries paid by the Trust are to caretakers of its properties—all other work is performed on an honorary basis by members.

Work of the Trust

A principal aim of the Trust is the preservation and, where necessary, restoration of buildings, bridges, etc. that form part of the State's history or are architecturally significant. A first step to achieving this objective is the classification of buildings combined with an active programme to promote public awareness of the necessity to retain such buildings for the future.

The Trust has conducted active campaigns to preserve many structures from demolition or alteration in Tasmania. A few of the more notable examples follow:

Bridges on the Hobart-Launceston Highway: Early in 1966 the Minister for Lands and Works announced that some bridges on this highway would have to be widened as a part of a general road re-construction programme. The Trust suggested that construction of by-passes may be a suitable alternative and would leave the historic bridges intact. The question was solved at least temporarily, by consultation with the Minister.

Salamanca Place: It was proposed that one of the whaling warehouses in Salamanca Place (Hobart) would be sold. The complex, as a whole, forms a remarkable group of old buildings; the sale and possible destruction of one would have destroyed the character of the group. Fortunately prompt action by the Trust in co-operation with the Hobart City Council prevented its loss to the community.

Macquarie House and A.N.Z. Bank Building, Launceston: These are two of Launceston's most notable buildings, however, in 1972 it was announced that the buildings were to be demolished. *Macquarie House*, built about 1830, is a late-Georgian structure and has strong historic ties with Melbourne while the A.N.Z. bank, built in 1864, is a fine example of a transitional building. A petition against their destruction was forwarded to the Government and a definition of the uses to which the buildings may be put was given by the Trust. In September 1973 both buildings were still standing, but beyond this no progress had occurred.

Classification of Buildings

Classification of buildings forms an important part of the Trust's work. Originally buildings, etc. were classified A, B, C or D—those classified A were to be preserved at all costs. However, at the 1972 meeting of the Australian Council of National Trusts an alternative scheme was proposed by Professor J. M. Freeland. He suggested a two category classification:

- (i) *Classified Buildings*—mainly those previously classified A or B.
- (ii) *Recorded Buildings*—principally the old C and D categories.

This proposal was accepted and the policy established that the Trust should publicly fight for preservation of all classified buildings but only privately for recorded buildings.

Publications

In January 1965 the first issue of the Trust's newsletter was published. This publication is quarterly and is a forum for discussion of issues concerning the Trust and also gives details of Trust activities, donations received, etc.

In addition to the newsletter the Trust has been associated with the following publications:

- (i) *The Great North Road*—An illustrated historical strip map of the Hobart-Launceston Highway.
- (ii) *Priceless Heritage*—Published by the National Trust and the Platypus Press (Hobart). The volume includes photographs of old buildings taken for a competition arranged by *The Mercury*.
- (iii) *History of Campbell Town*—A history compiled by the Northern Historical Committee of the Trust and published by Campbell Town Council.
- (iv) *Highway in Van Diemen's Land*—The text of this book was prepared by G. H. Stancombe and the illustrations by Eric Ratcliff. It was published by the authors.
- (v) *Early Houses of the North-West Coast of Tasmania*—Written by Kathleen Cocker and published by G. H. Stancombe.

National Appeals

Two successful National Appeals have been conducted by the National Trust:

Wybalenna: A national appeal was conducted to raise funds for the acquisition and restoration of the Aboriginal Chapel at Wybalenna, Flinders Island.

Ross Bridge: Is possibly Tasmania's best known free-stone colonial bridge; however, it was not until publication of *The Bridge at Ross and the Sculpture of Daniel Herbert* by Leslie Greener and Norman Laird that the full significance of the bridge was realised. Considerable restoration was necessary and a national appeal to raise \$25,000 was opened. The sum was raised in a few weeks and the Government promised a further \$15,000 towards the project. Restoration work is now underway.

Trust Properties and Restoration

Franklin House, Franklin Village

See previous sections, *Establishment of the National Trust and Restoration of Franklin House*.

Runnymede, New Town

Built in 1844 by Robert Pitcairn, a solicitor, *Runnymede* was sold in 1850 to Bishop Nixon (Tasmania's first Bishop). In 1864 Nixon returned to England and the house was purchased by Captain Charles Bayley, owner of the whaler *Runnymede*, hence the name of the home. A descendant of Captain Bayley married a Bayly and the home remained in ownership of this family. Prior to formation of the Trust the family had expressed a wish that the State purchase *Runnymede* as a historic home, and after the Trust was formed *Runnymede* was offered to it. However, the Trust had no funds available, but Mr R. F. Fagan, who had been appointed Minister in charge of the Trust, arranged for the State to buy the home and lease it for 100 years to the Trust. Restoration was completed in 1969 and an official opening took place on 25 October 1969.

Clarendon

Built in the late 1830s by James Cox, *Clarendon* was described by Professor Burke of Melbourne as one of the three great houses of Tasmania. The Cox family lived at *Clarendon* until the property was taken over by the Closer Settlement Board after the First World War. In 1946 Mr and Mrs W. R. Menzies established a racehorse stud at *Clarendon* and in 1962 Mrs Menzies offered to give *Clarendon* with nine acres of land to the Trust. Mr Fagan arranged finance for restoration and the offer was accepted.

Clarendon's foundations required massive strengthening. This having been done, the interior and exterior were gradually restored. After a period, during which the house was let for balls, marriages, etc., the Trust decided to furnish a number of rooms with the help of the Coombe-Bedlington and Laurence Denham bequests and assistance from other Trust benefactors. On 29 October 1972 the partly furnished house was opened to the public.

Further restoration work at *Clarendon* is proposed. The historic home once had a portico and parapet, however, these were removed in the 1870s. Using a grant of \$35,000 from the Australian Council of National Trusts the portico and parapet are to be restored.

The Grange, Campbell Town

The Grange, a fine Gothic-revival house, was designed by the famous John Blackburn and built in the period 1848-1849 for Dr William Valentine. Early in 1963 Miss Dorothy Foster, who had been a member of the National Trust's council, bequeathed this home to the Trust. The Trust leases *The Grange* to the Adult Education Board which uses it for residential schools.

13 *Audley Street, Hobart*

This late Georgian house had been classified 'A' by the Trust and in 1967 Miss C. A. Collatz offered it as a gift to the Trust. Inspection revealed that the house required considerable restoration which was beyond the financial capacity of the Trust. The Trust pointed out that the gift could not be accepted if it were expected to undertake the restoration; however, as it was made clear to the Trust that the gift was entirely unconditional, it was accepted.

The Trust now realised that it had two houses (13 *Audley Street* and *Runnymede*) which could not be restored due to lack of funds. The situation was solved in late 1968 when a buyer came forward and said he was prepared to buy 13 *Audley Street* and enter into a covenant to restore and preserve the house. The offer was accepted and the money received spent on the restoration of *Runnymede*.

Staffordshire House, Launceston

This property comprises a combined Georgian merchant's house and business-premises at the front and a modern warehouse behind the house. The two-storey house was built in about 1835 and on the ground floor, facing the street, there are two magnificent paned show windows.

In 1967 the property was purchased partly from accumulated funds of the City Council-Government arrangements and partly from loans. Thieves had stolen the lead from the roof and extreme dilapidation had occurred; however, the Trust accomplished a successful restoration and both the house and warehouse are now let.

Church at Variety Bay

In 1968 the late Dr J. Bruce Hamilton presented the ruins of St Peters Church, Variety Bay, Bruny Island to the Trust.

Aboriginal Chapel, Wybalenna

The Aboriginal Chapel, at Wybalenna on Flinders Island, was built during the period of Aboriginal settlement on the island (1833-1847) and is the only remaining building of the settlement. In 1969 the Trust launched a successful national appeal to save the Chapel, it was subsequently purchased and restoration is proceeding.

Cottage at Oatlands

In 1970 the Oatlands Group of the National Trust purchased an old stone cottage which is now let.

Cottage at Ross

A fine stone cottage at Ross, between the Catholic Church and the bridge, was bought in 1971. The cottage was restored and is now used as a craft shop.

The Family and Commercial Inn, Deloraine

The building was presented to the Deloraine Council by Mrs G. M. Bramich as a memorial to her parents Mr and Mrs Cubitt. The Deloraine National Trust Group has since restored it and created a folk museum and cider bar from the old inn. Caretakers have been installed and the building opened to the public.

Chapter 15

SOCIAL WELFARE AND HEALTH SERVICES

WELFARE

Introduction

In Australia, the principal social welfare benefits are provided by the Federal Government under the *Social Services Act* 1947, as amended, which is administered by the Commonwealth Department of Social Security. Finance for the benefits is provided from the National Welfare Fund which is augmented each year from the Consolidated Revenue Fund by an amount equal to the payments made.

State social welfare, which covers child welfare and relief, is administered by the State Department of Social Welfare.

Commonwealth Department of Social Security

Commonwealth activity in social services began with the passage of the Federal *Invalid and Old Age Pensions Act* 1909. This and the *Maternity Allowances Act* were administered by the Department of the Treasury until 1941 when the Department of Social Services commenced to function as a separate organisation. Later, the functions of the Department were widened with the passing of the *Child Endowment Act*, the *Widows' Pensions Act* and the *Unemployment and Sickness Benefits Act*. A referendum held in 1946 empowered the Commonwealth to legislate for the provision of certain social services formerly provided by the States. In 1947, a consolidated *Social Services Act* was passed. The Department also administers the *Aged Persons Homes Act* and the *Sheltered Employment (Assistance) Act* and co-operates with the Commonwealth Department of Health in the administration of the *National Health Act*.

On 1 March 1973 the Commonwealth Government transferred the Health Insurance and Benefits Branch from the Department of Health to the Department of Social Security. Provision of hospital, nursing home, handicapped children's, medical and domiciliary nursing care benefits together with the operation of the Pensioner Medical Service are now the responsibility of the Department of Social Security.

The following table shows expenditure in Tasmania from the National Welfare Fund on benefits under the Federal *Social Services Act*. The most noticeable fluctuations occur in expenditure on unemployment benefits.

Commonwealth Social Security Payments Under the Social Services Act
(\$'000)

Benefit or Service	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Age and Invalid Pensions	15,414	16,768	19,517	21,835	25,543	33,656
Widows' Pensions ..	2,125	2,465	2,927	3,327	3,842	5,136
Maternity Allowances ..	254	267	259	274	260	241
Child Endowment (a) ..	6,612	6,710	7,416	6,686	7,196	8,185
Unemployment Benefits ..	264	297	360	366	966	2,095
Sickness Benefits ..	165	166	199	327	497	792
Special Benefits	42	55	68	71	79	128
Rehabilitation Service ..	58	76	91	r 122	130	152
Funeral Benefits	39	42	42	43	42	44
Total	24,973	26,846	30,880	r 33,050	38,556	50,428

(a) In 1969-70 and 1972-73 five twelve-weekly payments, instead of the usual four, were paid.

Social Security benefit rates announced at recent budgets are set out in the next table:

Commonwealth Social Security Benefits, 1972-73 and 1973-74
 (\$ Per Week Unless Noted as Lump Sum Payment)

Benefit	Maximum Rate		
	1972-73		1973-74
	August Budget	Amending Legislation (March)	August Budget
Age and Invalid Pensions and Sheltered Employment Allowances—			
Single Person (a)	20.00	21.50	23.00
Married Couple (Both Eligible and Living Together), Each ..	17.25	18.75	20.25
Married Couple (Both Eligible but Living Apart Through Ill Health), Each (a)	20.00	21.50	23.00
Married Couple (One Eligible) (a)	20.00	21.50	23.00
Wife (If not a Pensioner) (b)	17.25	18.75	20.25
First Child Under 16 Years (c)	4.50	4.50	5.00
Second and Each Subsequent Child Under 16 Years (c)	4.50	4.50	5.00
Guardian's Allowances—			
Where There is a Child Under 6 Years or an Invalid Child Requiring Full-time Care	6.00	6.00	6.00
Other Cases	4.00	4.00	4.00
Maternity Allowances (d)—			
No Other Children	30.00	30.00	30.00
One or Two Other Children	32.00	32.00	32.00
Three or More Other Children	35.00	35.00	35.00
Multiple Births, Additional Payment for Each Additional Child ..	10.00	10.00	10.00
Child Endowment—			
First Child Under 16 years	0.50	0.50	0.50
Second Child Under 16 Years	1.00	1.00	1.00
Third Child Under 16 Years	2.00	2.00	2.00
Each Other Child Under 16 Years (e)	(e)	(e)	(e)
Student Child Over 16 Years and Under 21 Years	1.50	1.50	1.50
Orphans' Pension .. .. .	..	..	10.00
Widows' Pensions (a)—			
Class A, Widows with Dependent Children	20.00	21.50	23.00
Mothers' Allowances—			
Where There is a Child Under 6 Years or an Invalid Child Requiring Full-time Care	6.00	6.00	6.00
Other Cases	4.00	4.00	4.00
First Child Under 16 Years (c)	4.50	4.50	5.00
Second and Each Subsequent Child Under 16 Years (c)	4.50	4.50	5.00
Class B, Widows Aged 50 Years or More (f)	17.25	21.50	23.00
Class C, Widows Under 50 Years of Age in Necessitous Circumstances (g)	17.25	21.50	23.00
Funeral Benefits (b)	(d)40.00	(d)40.00	(d)40.00
Unemployment and Short-term Sickness Benefits—			
Single Person	17.00	21.50	23.00
Married Couple	25.00	37.50	40.50
First Child Under 16 Years	4.50	4.50	5.00
Second and Each Subsequent Child Under 16 Years	4.50	4.50	5.00
Person 16 and Under 18 Years	7.50	..	..
Person 18 and Under 21 Years	11.00	..	..
Long-term Sickness Benefits (i)—			
Adult or Married Minor	20.00	..	..
Spouse	8.00	..	..
First Child Under 16 Years	4.50	..	..
Second and Each Subsequent Child Under 16 Years	4.50	..	..
Person 16 and Under 21 Years	13.00	..	..
Rehabilitation Service	(j)	(j)	(j)
Personal Care Subsidy (k)	5.00	10.00	12.00

(a) Supplementary assistance at a maximum rate of \$4.00 a week is payable, subject to the payment of rent and to a means test, to single age and invalid pensioners, to a married pensioner whose spouse is not a pensioner, to either or both of a married pensioner couple who, because of illness or infirmity, cannot live together in a

matrimonial home, and to widow pensioners. Supplementary assistance may also be paid to recipients of sheltered employment allowances and to married pensioner couples paying rent, payment being made on the basis of half to each partner.

- (b) Wife's pension is payable, subject to a means test, to a non-pensioner wife.
- (c) A child is treated for pension purposes as being under 16 years or until he attains 21 years of age if he is a full-time student and dependent on the pensioner.
- (d) Single lump sum payment.
- (e) Child endowment for the fourth and subsequent children under 16 years in a family increases by 25 cents a week for each child so that the rate payable is \$2.25 a week for the fourth child, \$2.50 for the fifth child and so on.
- (f) Class B Widows' pensions may also be payable to certain widows between 45 and 50 years of age.
- (g) Class C Widows' pensions are generally payable for not more than 26 weeks immediately after the husband's death.
- (h) A funeral benefit of up to \$40 is payable to an age, invalid or widow pensioner liable for the funeral costs of a spouse, a child or another such pensioner. A benefit of up to \$20 is payable to any person liable for the funeral costs of an age or invalid pensioner. For these benefits, 'pensioner' means a person who would be entitled to a pension if the tapered means test did not apply.
- (i) Long-term sickness benefits are payable to persons who have received sickness benefits continuously for six weeks. A supplementary allowance at a maximum rate of \$4 a week is payable subject to the payment of rent and to a means test. Persons in hospital who have no dependants do not qualify for these benefits. From March 1973 no distinction is made between long-term and short-term benefit rates.
- (j) Disabled persons may be given rehabilitation treatment, followed, where necessary, by vocational training. During the period of rehabilitation treatment patients receive the appropriate pension or benefit and while receiving vocational training they are paid a rehabilitation allowance. In addition a training allowance and, where appropriate, a living away from home allowance are also payable free of means test. Free vocational training, with associated allowances, may also be available to Class A and Class B widow pensioners.
- (k) A subsidy of \$12 a week is payable in respect of persons who receive approved personal care and who reside in hostel-type accommodation in an aged persons' home conducted by an eligible organisation under the *Aged Persons Homes Act*.

Pensions and Benefits

In the previous table a description was given of the various pensions, benefits, etc. The rates and conditions are varied from time to time by amending legislation; the 1973-74 rates were announced in the Federal Budget of August 1973. (The Federal Treasurer outlines social security proposals in his budget and these are implemented in later Acts.)

Age and Invalid Pensions

Generally pensions are payable to persons who have been resident in Australia, New Zealand or the United Kingdom for 10 years in the case of age pensioners and five years in the case of invalid pensioners. (Reciprocity agreements exist with New Zealand and the United Kingdom.)

The qualifying ages for age pensions are 65 years for men and 60 years for women; invalid pensions are payable to persons over 16 years of age who are permanently incapacitated for work. Additional allowances are payable for dependants under certain conditions.

For age and invalid pensions, the same means test on income and property operates. 'Means' can consist entirely of income, entirely of property, or any combination of them. The calculation of income excludes the pension itself, income from property, gifts from family, benefits from hospital and medical insurance schemes, child endowment, etc.; the property component excludes home, furniture, personal effects, the first \$400 of property and \$1,500 of surrender value of life policies, and the capital value of any life or contingent interest, etc. Blind persons, however, may receive the maximum rate of pension free of means test.

The 1973 Federal Budget varied the sliding scale means test so that a single pensioner can draw the full pension (\$1,196 per annum) and also have other income not exceeding \$1,040. When the single pensioner's other income reaches \$3,432, all pension ceases.

Married pensioners can draw full pension (\$2,106 per annum) and also have other income of \$1,794. When their other income reaches \$6,006, all pension ceases.

Property equivalents of income are calculated by assuming that 'income' is 10 per cent of the value of property. So the permissible property limits under the varied means test are as follows:

Single: Lower Limit: $\$1,040 \times 10$ plus $\$400 = \$10,800$.
 Upper Limit: $\$3,432 \times 10$ plus $\$400 = \$34,720$.
 Married: Lower Limit: $\$1,794 \times 10$ plus $\$800 = \$18,740$.
 Upper Limit: $\$6,006 \times 10$ plus $\$800 = \$60,860$.

If the only means are those assessed on the basis of property, then the lower limits shown above are compatible with drawing full pension; and the upper limits are those at which all pension ceases.

The 1973 Budget abolished the means test for all people aged 75 years or more. However, age pensioners with a total income (including pension) exceeding a specified limit are subject to income tax. Persons wholly or largely dependent upon the age pension do not have to pay income tax.

Free medical service and medicine are provided for pensioners and their dependants, and a concessional telephone rental equal to two-thirds of the amount otherwise payable is available to blind people, pensioners who live alone, and to certain others. Radio and television licences at a reduced rate are also available to these pensioners. Persons who become pensioners for the first time because of the 'tapered' means test, introduced in October 1969, are not eligible for membership of the Pensioner Medical Service or entitled to other subsidiary benefits.

On the death of one of a married pensioner couple, the survivor receives six fortnightly instalments at the married couple rate before reduction to the single rate.

Pensions are paid fortnightly by cheque posted to the pensioner's address.

Widows' Pensions

These were introduced by the Curtin Government in 1942. They are payable to widows who had been resident in this country, New Zealand or the United Kingdom for five years before claiming a pension. There is no residential qualification where the woman and her husband were living permanently in Australia before he died. A woman also qualifies if her husband died overseas and she has lived in Australia for 10 years at any time.

The classes of widows are as follows: (i) a Class A widow has one or more dependent or student children in her care; (ii) a Class B widow is at least 50 years of age, or 45 years when her Class A pension ceases (because she no longer has a child in her care); and (iii) a Class C widow is under 50, without children, and in necessitous circumstances in the 26 weeks following her husband's death. The term 'widow' includes a deserted wife, a divorcee and a woman whose husband has been imprisoned for at least six months or is a patient in a mental hospital. Certain 'dependent females' may also qualify for pension.

The following table shows, for Tasmania, the number and sex of persons receiving age, invalid and widows' pensions, and the amounts paid out in pensions and allowances:

Age, Invalid and Widow Pensioners and Payments

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Age and Invalid Pensions—						
Number of Age Pensioners (a)—						
Males	6,178	6,353	7,312	7,667	8,057	9,270
Females	14,233	14,676	16,603	17,227	17,611	19,837
Persons	20,411	21,029	23,915	24,894	25,668	29,107
Number of Invalid Pensioners (a)—						
Males	2,065	2,231	2,376	2,523	2,592	2,836
Females	1,483	1,588	1,675	1,793	1,906	2,019
Persons	3,548	3,819	4,051	4,316	4,498	4,855
Amount of Pensions Paid .. \$'000	15,414	16,768	19,517	21,835	25,543	33,656
Widows' Pensions—						
Number of Pensioners (a)	2,588	2,678	2,958	3,138	3,205	3,600
Amount of Pensions Paid .. \$'000	2,125	2,465	2,927	3,327	3,842	5,136

(a) At 30 June.

Unemployment, Sickness and Special Benefits

Legislation for these benefits was introduced in 1944 by the Curtin Government and payments began in 1945. The minimum age is 16 years, the maximum 65 (male) and 60 (female). There are no nationality restrictions, but if a claimant has not been resident in Australia for one year before making the claim, the Department must be satisfied that he intends to live here permanently. Benefits are not payable to people qualified to receive invalid, age, widows' or service pensions, or tuberculosis allowances.

To receive unemployment benefit, a person must be out of work (but not through being a direct participant in a strike), must be capable of undertaking and willing to undertake suitable work and have taken reasonable steps to obtain employment. Registration with the Commonwealth Employment Service is necessary; payment is at the discretion of the Department of Social Security.

Sickness benefit may be paid to a person temporarily unable to work because of sickness or accident and who has suffered a loss of income because of this. A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where the husband is able to maintain her partially, a benefit may be paid at a rate considered reasonable in the circumstances.

A special benefit may be granted to a person not qualified for a pension or an unemployment or sickness benefit if, because of age, physical or mental disability, domestic circumstances, or for other valid reasons, he is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, persons caring for invalid parents, and persons ineligible for either age, or invalid or widowers' pensions because of lack of residence qualifications.

The next table gives Tasmanian details for unemployment, sickness and special benefits:

**Commonwealth Unemployment, Sickness and Special Benefits
Beneficiaries and Payments**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Unemployment Benefits—						
Claims Granted no.	3,746	4,110	3,825	4,388	8,974	12,536
Persons on Benefit—						
At 30 June no.	635	600	437	782	1,697	2,330
Weekly Average no.	506	571	548	501	1,187	2,073
Benefits Paid \$'000	264	297	360	366	966	2,095
Sickness Benefits—						
Claims Granted no.	1,952	2,119	2,194	2,687	2,964	3,295
Persons on Benefit—						
At 30 June no.	291	242	263	349	428	583
Weekly Average no.	259	234	228	292	382	499
Benefits Paid \$'000	165	166	199	327	497	792
Special Benefits—						
Claims Granted no.	99	414	429	388	418	459
Persons on Benefit—						
At 30 June no.	87	147	157	150	138	148
Weekly Average no.	89	135	145	146	139	136
Benefits Paid \$'000	42	55	68	71	79	128
Total Benefits—						
Claims Granted no.	5,797	6,643	6,448	7,463	12,356	16,290
Persons on Benefit—						
At 30 June no.	1,013	989	857	1,281	2,263	3,061
Weekly Average no.	854	940	921	939	1,708	2,708
Benefits Paid \$'000	471	518	628	764	1,542	3,015

Maternity Allowances

Maternity allowances were introduced by the Fisher Government in 1912. There is no means test and any mother is entitled to a maternity allowance if she gives birth to a child in Australia and if she resides or intends to remain in Australia.

The following table shows payments made in Tasmania during recent years:

Maternity Allowances						
Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Claims no.	7,939	8,373	8,130	8,594	8,211	7,615
Amount \$'000	254	267	259	274	260	241

Child Endowment

Child endowment was introduced by the Menzies Government in 1941, and is paid to persons or institutions having the care, custody and control of children under 16 years, or student children under 21. One year's residence in Australia is required if the mother and child were not born here, but this requirement is waived if the Department is satisfied they intend to remain here permanently.

The following table shows child endowment statistics for Tasmania:

Child Endowment Endowed Children and Students and Payments						
Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Endowed Children and Students (a)—						
Children in Endowed Families no.	127,849	129,200	129,853	129,322	128,946	128,297
Children in Approved Institutions no.	432	436	423	429	447	440
Students (a) no.	4,166	4,942	5,263	5,525	6,213	5,834
Total Endowed .. no.	132,447	134,578	135,539	135,276	135,606	134,571
Amount Paid During Year (b) .. \$'000	6,612	6,710	7,416	6,686	7,196	8,185

(a) Number at 30 June. Children, under 16 years; students, 16 but under 21 years, includes students in approved institutions.

(b) In 1969-70 and 1972-73 five 12-weekly payments, instead of the usual four, were paid.

Orphans' Pension

The 1973 Budget introduced an orphans' pension which is payable to institutions or persons caring for a child whose parents are both dead or one parent is dead and the other parent cannot be located.

Pensioner Health Benefits and Tuberculosis Allowances

The pensioner medical service and tuberculosis allowances are described later in this Chapter under the heading 'Health Services'.

Commonwealth Rehabilitation Service

In 1941 the Curtin Government introduced provisions for the vocational training of invalid pensioners. In 1948 the Chifley Government provided for the rehabilitation of invalid pensioners and of unemployment and sickness benefit recipients. The Menzies Government in 1955 extended eligibility to persons receiving tuberculosis allowances and to children of 14 and 15 years who otherwise might qualify for an invalid pension at 16. In 1958 widow pensioners and people receiving special benefits were granted eligibility.

The Service aims to fit handicapped people for employment by supplying medical and hospital treatment, surgical aids and appliances and, where necessary, arranging special education and training courses in industry, trade, commerce, public service, etc. Although employment is specifically the responsibility of the Department of Labour, vocational counsellors arrange employment with suitable employers and follow-up progress.

Rehabilitation training is given if the disability is a substantial handicap to engaging in full employment. Disabled people who do not qualify for free service may pay for rehabilitation themselves or may be sponsored by private or government organisations. In Tasmania the Department's rehabilitation centre is located in Hobart.

The following table shows the numbers accepted for rehabilitation and placed in employment in Tasmania:

Operation of Commonwealth Rehabilitation Service

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Persons—						
Accepted for Rehabilitation .. no.	89	100	96	100	77	82
Placed in Employment .. no.	81	90	80	91	71	45
Expenditure (a) \$'000	58	70	79	108	112	133

(a) Excludes capital expenditure on sites and buildings and administrative costs of the Rehabilitation Service.

Training Scheme for Widow Pensioners

In 1968 the Gorton Government introduced a training scheme to provide Class A and Class B widow pensioners with a vocational skill to enable them to undertake gainful employment. Training is limited to one year's duration; it may be either full-time or part-time, and generally it will be provided in business or technical colleges. This has necessitated special classes being organised by arrangement with the Tasmanian Education Department.

During training a widow continues to receive her pension, subject to normal conditions of eligibility, and in addition receives a training allowance of \$16 per fortnight (full-time training) plus fares reimbursement. The Commonwealth pays all tuition fees, and in addition provides essential books and equipment during training.

The following table gives details of expenditure on the scheme since its introduction and the numbers accepted for training and placed in employment:

Operation of the Commonwealth Training Scheme for Widow Pensioners

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Persons—					
Accepted for Training .. no.	41	41	55	45	50
Placed in Employment .. no.	2	17	20	23	15
Expenditure \$'000	6	13	14	18	19

Homes for the Aged

Under the *Aged Persons Homes Act* 1954, the Menzies Government provided for subsidies, on a \$ for \$ basis, to approved organisations intending to build or acquire homes for aged persons. In 1957 the cost of land was allowed as part of the capital cost and the Commonwealth contribution was increased to \$2 for \$1. The aim is the provision of conditions approaching ordinary domestic life. ('Homes' in this context does not refer to houses built under the Commonwealth-State Housing Agreement.) During 1972-73, 14 grants, amounting to \$322,727 were approved. Cumulative totals for Tasmania, since inception of the scheme, to 30 June 1973 were: number of grants approved, 147; value of approvals, \$5.85m.

Personal Care Subsidy

A subsidy of \$12 per week is payable to eligible organisations in respect of all persons who receive approved personal care in hostel-type accommodation in an aged persons' home eligible under the *Aged Persons Homes Act* 1954-1972 and for whom National Health Benefit is not received. Prior to the 1973 Budget, this subsidy was \$10 per week and was restricted to those residents 80 years of age and over.

Delivered Meals Subsidy

A subsidy at the rate of \$2 for every 10 meals provided is payable to approved organisations to establish, maintain, expand and improve 'meals-on-wheels' service. In 1972-73 18 organisations in Tasmania provided approved meal services, and subsidy payments were \$20,785.

Sheltered Workshops

The Commonwealth *Sheltered Employment (Assistance) Act* 1967 incorporated the *Disabled Persons Act* 1963. The Act's object is to foster and encourage the development of sheltered workshops for disabled people who, on medical grounds, qualify or who may later qualify, as invalid pensioners; to provide such persons with work experience, and the opportunity to earn to the limit of their capabilities for work done, the hope being that some may graduate to normal employment in the future.

Assistance is given by a \$2 for \$1 subsidy towards: (i) the capital cost of erection or addition to workshops; (ii) the accommodation of people engaged in sheltered employment; (iii) the rental for up to three years of premises used to provide sheltered employment; (iv) the cost of workshop equipment; and (v) accommodation hostels for handicapped people engaged in normal employment.

In addition a \$1 for \$1 subsidy is payable towards the cost of salaries of some employees of sheltered workshops and hostels for disabled people engaged in sheltered employment. A training fee of \$500 is payable for each eligible disabled person placed in open employment for not less than twelve months.

During 1972-73 two workshop and 26 equipment grants totalling \$98,562 were approved. Payment of five training fees (\$2,500) was made and \$4,946 was paid in salary subsidies in respect of five approved positions. Grants approved in Tasmania since inception of the scheme to 30 June 1973, amounted to \$836,039.

Assistance for Handicapped Children

The Commonwealth *Handicapped Children (Assistance) Act* 1970 is designed to assist organisations to provide special training and accommodation facilities for handicapped children with the aim that, in many cases, the children will eventually be engaged fully in the social and economic life of the community.

Under the Act a \$2 for \$1 subsidy is payable to eligible organisations towards: (i) the capital cost of premises for the training of handicapped children; (ii) the cost of equipment for, or in connection with, such training; and (iii) the capital cost of residential accommodation for handicapped children receiving training.

During 1972-73 five training programmes were approved. Four training centre grants, one accommodation grant and 11 equipment grants totalling \$209,251 were approved.

Pensioner Medical Service

Free general practitioner medical treatment is available for most age, invalid, widow and service pensioners and their dependants (the exclusion relates to those admitted to pension by liberalisation of the means test in October 1969). Entitlement cards for these benefits are issued by the Social Security Department (or by the Repatriation Department in respect of service pensioners). Eligible pensioners are treated free in out-patient departments and in standard wards of public hospitals.

National Health Benefits

The following table shows Commonwealth payments for the various health benefits and services under the control of the Department of Social Security. Other National Health Payments details are contained in the section dealing with the Commonwealth Department of Health.

Commonwealth National Health Payments
Administered by Department of Social Security (a)
(\$'000)

Benefit or Service	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Hospital Benefits ..	1,518	1,590	1,787	1,803	1,863	1,913
Nursing Home Benefits	800	1,010	1,393	1,512	2,343	2,840
Medical Benefits—						
General	1,443	1,609	1,725	2,879	3,562	4,457
For Pensioners ..	460	491	580	639	876	946
Handicapped Children's Benefit (b) .. ..	..	5	16	18	21	19
	4,221	4,705	5,501	6,851	8,665	10,175

(a) Payments from National Welfare Fund. The responsibility for administering these payments was transferred from the Commonwealth Department of Health on 1 March 1973.

(b) Introduced from 1 January 1969.

Medical Benefits: In 1970 important amendments to the *National Health Act 1953-69* introduced a new national medical benefits scheme based on the principle of a 'most common fee'. A list of fees representing those most commonly charged by doctors in each State was compiled, following a survey undertaken before finalising the new medical benefits scheme. From 1 July 1970 contributors to a registered medical benefits fund, whose doctor charges the 'most common fee', pay no more than \$5 for any service, ranging from 80c for a surgery visit to \$5 for a complicated surgical operation. The balance of the cost is then shared between the health fund and the Commonwealth Government. The old multi-table scheme has been replaced by a single table with contribution rates varying from State to State; in Tasmania most organisations have a weekly family rate of 50c and a single rate of 25c.

Hospital Benefits: These benefits are paid for all patients by the Commonwealth at a minimum rate of \$0.80 a day but if a person contributes to a hospital benefits organisation the Commonwealth benefit increases to \$2. The highest combined organisation and Commonwealth benefit in Tasmania is \$32 a day and the highest family rate of contribution is \$2.20 a week.

Subsidised Medical and Hospital Services: The Commonwealth also provides special financial assistance in the following cases:

(a) Low income benefit: (i) a family with an income of \$60.50 (gross) or less: free medical benefits and public ward hospital cover; (ii) gross family income above \$60.50, but not exceeding \$65.00: medical benefits and public ward hospital cover for one-third of the normal health insurance contribution; (iii) gross family income above \$65.00, but not exceeding \$69.50: benefits as above, but for two-thirds of the normal health insurance contribution. (The above income figures were operative at 15 June 1973.)

(b) Persons receiving unemployment, sickness or special benefits under the *Social Services Act*: full medical benefits and public ward hospital cover.

(c) Migrants: full medical benefits and public ward hospital cover during the first two months in Australia, providing the migrant has joined a medical benefits fund.

Hospital and Medical Benefit Payments: Commonwealth hospital benefit payments are made on a hospital bed-day basis as follows: insured patients, \$2; uninsured, 80c; pensioner patients, \$5. The following tables show payments by the Commonwealth, and also by the health insurance organisations (referred to as 'Fund Benefits') in Tasmania, together with details of the number of such organisations and their membership.

Hospital Insurance: Members and Benefits

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Registered Organisations (a) .. no.	9	9	10	10	10
Members (a) '000	115	118	118	131	125
Hospital Benefits Paid—					
Commonwealth Benefits—	\$'000	\$'000	\$'000	\$'000	\$'000
Insured Patients (b)	709	710	868	1,351	1,596
Uninsured Patients (c)	45	46	33	27	20
Hospitalisation Free of Charge ..	..	..	4	6	16
Pensioner Patients (c)	836	984	1,048	1,098	1,130
Subsidised Medical Service Patients	..	47	173	313	416
Total	1,590	1,787	2,126	2,789	3,178
Fund Benefits (d)	3,228	3,310	3,701	5,354	6,326

(a) At end of year.

(b) Includes Special Account deficits.

(c) Paid direct to hospitals by Commonwealth.

(d) Includes Ancillary Benefits: certain supplementary services for which a Fund Benefit payment, but no Commonwealth payment is made, e.g. home nursing, physiotherapy, provision of spectacles, orthoptics, chiropractice.

Medical Insurance: Members and Benefits

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Registered Organisations (a) .. no.	9	9	9	10	10	10
Members (a) '000	115	113	116	118	131	125
Medical Services During Year .. '000	962	1,065	1,165	1,174	1,202	1,395
Medical Benefits Paid—						
Commonwealth Benefits .. \$'000	1,446	1,609	1,725	2,879	3,562	4,457
Fund Benefits (b) \$'000	1,436	1,704	1,916	1,997	2,206	2,627

(a) At end of year.

(b) Includes Ancillary Benefits—see note (d) in preceding table.

Nursing Home Benefits: Prior to 1 January 1973 the Commonwealth paid a benefit of \$3.50 per day direct to the homes for each qualified patient and a further \$3.00 a day for patients classified as requiring intensive care. (Nursing homes are required to deduct the Commonwealth payment from patients' accounts.) As from 1 January 1973 a number of changes were made to the Nursing Home Benefits Scheme. The changes required nursing homes to re-apply for registration as nursing homes under prescribed new conditions which included acceptance of a fees control system and the necessity for Departmental approval to be obtained before a patient can be admitted. Fees actually being charged at 30 June 1972 by each nursing home were accepted as a 'base' figure (except for rationalisation to appropriate ward fees in those cases where the nursing home was agreeable). Any increases sought above the 'base' figure now have to be justified by certified cost increases e.g. award wages, cost of provisions, etc. An independent fees review committee was set up in each State to determine any appeals made by nursing homes against Departmental decisions on fees. In addition to the foregoing the Government arranged for additional nursing home benefits to be provided. In the case of pensioners with a pensioner medical service entitlement, an additional benefit up to \$1.50 per day is paid to nursing homes for deduction from the patients' accounts. In the case of non-pensioners, who are insured for hospital benefits with a registered organisation, the organisation pays a benefit up to \$1.50 per day to the nursing home for deduction from the insured patients' account. Payments now made are shown in the following table:

Nursing Home Benefit Rates
(\$ Per Week)

Particulars	Ordinary Care Patients	Intensive Care Patients
Benefit Prior to 1 January 1973	24.50	45.50
Additional Benefit from 1 January 1973 (a)	10.50	10.50
Patients Share of Fees	18.00	18.00
Total Fee (b)	53.00	74.00

(a) Payable by the Commonwealth for pensioners and by approved hospital benefits organisations for insured non-pensioners.

(b) "Total Fees" (\$53.00, ordinary care and \$74.00, intensive care) are the *standard fees* as determined by the Government at 1 January 1973. If fees actually charged are: (i) less than the standard fee the additional benefit, shown above, is reduced by the difference; or (ii) greater than the standard fee the patient's share, shown above, is increased by the difference.

Domiciliary Nursing Care Benefit: This new benefit was introduced by the Federal Government from 1 March 1973. The benefit of \$2 a day (\$14 a week) is designed to help meet the cost of home nursing and other professional care for aged people who are chronically ill but being cared for in their own homes. It is payable to any person who provides continuous care for a patient in a private home provided the home is the usual residence of both the person and the patient and provided the patient meets certain medical criteria. The main eligibility rules are: (i) patients must be 65 years of age or more; (ii) patients must have an official certificate from their doctor stating that because of infirmity or illness, disease, incapacity or disability they have a continuing need for nursing care by a registered nurse; and (iii) patients must be receiving care by a registered nurse on a regular basis involving multiple visits each week.

Handicapped Children's Benefit: A benefit of \$1.50 per day is paid for each handicapped child (to 16 years) in approved institutions.

State Department of Social Welfare

Expenditure

Activities of this State Government Department are grouped under Child Welfare and Relief. The following table shows expenditure over a five-year period:

Department of Social Welfare: Expenditure
(\$'000)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Administration and General	303	411	452	571	653
Relief Division	189	259	386	484	653
Child Welfare Division	222	300	307	325	368
Ashley Home for Boys	105	(a)	(a)	(a)	(a)
Grants to Organisations	85	109	121	146	127
Total	904	1,079	1,267	1,526	1,802

(a) Not available; included under Administration and General and Child Welfare Division.

In 1971-72 the major expenses were: under Relief Division, fuel allowances for eligible pensioners, \$133,000 and relief and maintenance, \$497,000; under Child Welfare Division, maintenance of boarded-out children, \$178,000 and contributions towards maintenance of children in approved institutions, \$103,000; and under Grants to Organisations, Tasmanian Institute for Blind and Deaf, \$127,000.

Relief Division

The functions of this Division are to investigate applications for assistance from needy mothers with dependent children and to give cash relief where necessary; to issue fuel allowances (subject to a means test) to age and invalid pensioners; and to help pay for funerals, transport, furniture removals, artificial limbs, spectacles, etc. for persons in indigent circumstances. Special grants are made to deserted wives (and sometimes deserted husbands) left with children, wives with husbands in gaol, to certain persons awaiting receipt of Commonwealth benefits or pensions, and to relatives supporting deserted children.

Child Welfare Division

The work of this Division includes the investigation of complaints that children are neglected or inadequately controlled; the supervision of neglected children in their own homes to avert the need for more drastic action; the investigation of cases to appear in Children's Courts; the supervision of children under Court order; the placement and supervision of children made wards of the State; the control of the Department's receiving and other homes; the recovering of maintenance costs, where possible, from parents of children who are a charge on the Department; the licensing and supervision of children's boarding homes and day nurseries; the supervision of child migrants; and welfare of children referred by Courts in divorce actions.

Where, because of illness, a mother is unable to undertake her normal duties, accommodation may be provided for her children at Rochebank Hostel in Hobart, or at other suitable residences throughout the State.

Adoption of Children: Women child welfare officers investigate applications by prospective adoptive parents and interview mothers wishing to place their children for adoption. Applications for adoption of children are heard by a magistrate. There were 268 orders for adoption made in 1972-73.

Children's Courts Statistics

In February 1970 the regulations dealing with the treatment of child offenders were changed so that police were no longer required to report cases to District Child Welfare Officers for approval of proceedings. Previously child welfare officers sometimes recommended that no further action be taken in particular cases, resulting in more children appearing in police reports than eventually appeared in court.

Children's Courts are established to hear cases involving persons under the age of 17 years. If proceedings are instituted, a child's parent has the right to be heard and to examine and cross examine witnesses or to be represented by counsel; also a parent can be compelled to attend the hearing if this imposes no unreasonable inconvenience. For the powers of Children's Courts see the section under 'The Present Law Court System' in Chapter 16.

The following table shows the number and ages of children who appeared before Children's Courts in 1970-71:

Children Appearing Before Children's Courts (a), 1971-72
Classified by Age and Sex

Sex	Age (in Years)										Total (b)
	Under 8	8	9	10	11	12	13	14	15	16	
Boys	9	9	18	30	66	88	144	278	307	663	1,661
Girls	8	3	2	4	5	12	26	40	61	95	264
Total	17	12	20	34	71	100	170	318	368	758	1,925

(a) A child appearing twice or more before the Courts will appear twice or more in the table.

(b) Includes 57 children (49 boys and eight girls) who were 17 years old when appearing before the Courts but 16 at the time the alleged offences were committed.

Before 1969-70 a child could not be prosecuted without his case having been referred to a welfare officer for investigation. The following table shows the offences for which children were reported each year until 1968-69; from 1969-70, however, the figures relate to actual prosecutions. Where a report concerned multiple offences the apparently more serious one has been listed.

Children in Police Reports (a)
Classified by Offence

Offence Alleged	1967-68	1968-69	1969-70	1970-71	1971-72
Damage to Property	135	99	86	103	92
Breaking, Entering and Stealing	346	326	338	320	327
Stealing	404	426	397	326	322
Receiving	24	12	19	24	22
Illegal Use of Vehicle	125	59	69	133	176
Offences Involving Fraud	9	14	10	18	17
Sex Offences	21	11	16	8	19
Other Offences Against the Person	24	41	30	62	53
Offences Against Decency	24	32	25	27	34
Relatively Serious Offences.. .. .	1,112	1,020	990	1,021	1,062
Disorderly Conduct	48	32	33	42	40
Traffic Offences	162	185	177	229	218
Breaches of—Licensing Laws	311	331	293	316	400
By-laws	27	7	27	44	50
Firearm Offences	46	42	36	24	42
Other Offences	594	597	566	655	750
Appearing as—Uncontrolled	19	19	35	36	41
Neglected	89	73	70	61	53
Breaches of Supervision	10	15	10	4	19
Complaints under Child Welfare Act	118	107	115	101	113
Total	1,824	1,724	1,671	1,777	1,925

(a) A child reported twice or more will appear twice or more in the table. Prior to 1969-70, children in police reports were not all necessarily brought before the Courts (see paragraph preceding table).

In the previous table, a child may appear more than once if more than one report has been made. The following table shows the number of children found guilty of an offence or against whom a complaint has been proven; the basis for inclusion is different from that in the two earlier tables: (i) a child found guilty at two or more appearances is only counted once; and (ii) a child found guilty of more than one offence is classified under the more serious.

Individual (a) Children: Findings of Guilty, or Complaint Proven, 1971-72

Sex	Relatively Serious Offences (b)	Other Offences (b)	Complaints under Child Welfare Act (b)	Total
Boys	822	562	37	1,421
Girls	101	96	46	243
Total	923	658	83	1,664

(a) See paragraph before table for definition of 'individual'.

(b) See previous table for classification of offences and complaints.

Wards of the State and Supervised Children

Children are made wards of the State either on application of a parent or relative (e.g. in the case of both parents' death or desertion) or by a court order. Children may remain wards until they reach the age of 18 and in some cases wardship can be extended to the age of 21. Wards, while under the supervision of a welfare officer, are often returned to their home and in such cases wardship is frequently terminated, as it is with those who successfully take up employment.

**Wards of the State: Location, Admissions and Discharges
(Number)**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Location at 30 June—					
In Homes—					
Departmental	112	92	103	110	98
Other Children's	179	196	197	204	199
Foster	282	356	392	349	374
With Parents or Relatives	176	113	132	163	177
In Private Lodgings	54	63	28	55	50
Other (a)	24	27	28	39	39
Total	827	847	880	920	937
Children Made Wards During the Year—					
By Courts—Delinquent	60	69	78	70	79
Neglected	40	43	24	40	36
On Parents' or Guardians' Request—					
Neglected (Uncontrolled) (b)	9	6	4	2	1
Deserted, or Parents Unable to Provide (c)	56	65	68	58	53
Total	165	183	174	170	169
Children Ceasing to be Wards During the Year—					
Adopted	20	35	27	31	33
Supervision Not Needed, Age, etc.	102	128	114	99	119
Total	122	163	141	130	152

(a) Children in hospitals, other government institutions, missing, etc.

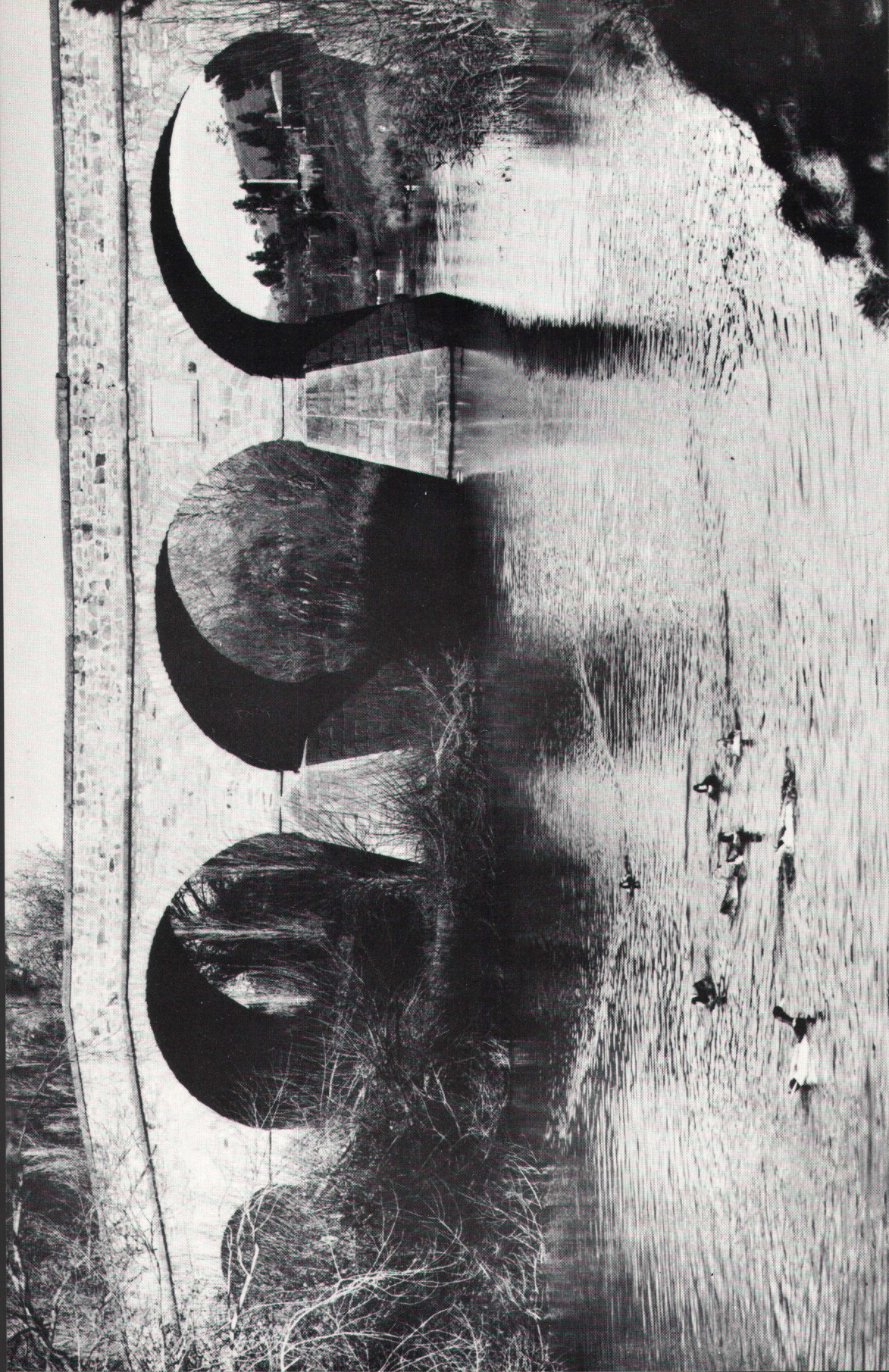
(b) Neglected—unfit for guardianship.

(c) Destitute and/or homeless.

At 30 June 1972 there were 1,343 children under State control or supervision. Of these children 406 were under legal supervision of child welfare officers as a result of court-imposed supervision orders and 937 were wards of the State.

Wards are placed in: (i) foster homes (mostly ordinary family homes); and (ii) children's homes (private and departmental). The Department makes payments, based on the child's age, for wards in foster homes and contributes to non-departmental institutions for the maintenance of State wards.

Approved children's homes and foster homes are assisted with major items of clothing. The Department accepts responsibility for hospital expenses and cost of dentistry for wards of the State where this treatment is not available from school dental or hospital services. Optical expenses are also met where necessary. Pocket money, varying from 10 to 75 cents per week, is provided for children in foster homes. Assistance at a rate of \$2.05 per week also is available in respect of certain non-wards, who are orphans or abandoned, in the care of the managers of approved children's homes. Contributions are also made to approved children's homes towards the maintenance of children without other means of support admitted at the direct request of other State Government Departments. The maximum rate payable is \$8.25 a week for each child.



Richmond Bridge

[Dept of Film Production]



Rail Fans Festival Special, August 1973. Locomotive CCS 23 on North-East Line

[Dept of Film Production]

The next table shows government expenditure on wards of the State:

**Wards of the State: Government Expenditure
(\$'000)**

Particulars	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Expenditure on Departmental Homes	211	222	227	240	271	341
Maintenance of Children—						
In Foster Homes	98	103	119	134	149	178
In Non-departmental Homes ..	71	78	95	97	94	103
Total Expenditure	381	404	441	471	515	622

Departmental Homes: The State's seven receiving homes, which provide temporary accommodation for children, are maintained at Hobart, Launceston and Wynyard. Also, in Hobart, a hostel provides accommodation for older boys who have left school and need to be established in employment.

Ashley Home for Boys, Deloraine, provides care and training for older wards who, because of maladjustment or delinquency, require special institutional control.

Wybra Hall, Mangalore, provides care and training for younger wards and boys on remand. Ages range from eight to 15 years and those admitted have problems of maladjustment or delinquency.

Westwinds, Woodbridge, is a home for intellectually and educationally retarded boys who range in age between seven and 17. Boys of school age attend the local area school. On completion of schooling, boys in need of further training are trained on the home farm as a preparation for future employment.

Weeroona Girls' Training Centre (Latrobe) provides for those adolescent girls in the care of the Department who require special institutional supervision and training. Girls of school age receive correspondence school education and older girls are trained in various aspects of domestic work.

Non-departmental Homes: Other children's homes in which wards are placed are: Kennerley Children's Homes at Claremont and Chigwell; Salvation Army Boys' Home, Salvation Army Girls' Home, St Joseph's Child Centre, Bethany Boys' Hostel, Mt St Canice Convent and Hillcrest, all in Hobart; Yalambee Hostel, Glenorchy; Clarendon Home, Kingston; Girls' Home, and Northern Tasmanian Home for Boys, Launceston; and Roland Boys' Home, Sheffield.

REPATRIATION SERVICES AND PENSIONS

General

The Repatriation Department was established as a Commission under Federal legislation in 1920. The term 'repatriation' does not adequately describe the Department which is responsible for: (i) the payment of war and service pensions to eligible ex-servicemen and women and their dependants; (ii) the provision of medical treatment to ex-servicemen and women for injuries and illnesses caused or aggravated by their war service; (iii) the provision of medical treatment to widows and dependants of deceased ex-servicemen whose deaths were due to war service; (iv) the provision of medical treatment in certain circumstances to ex-servicemen and women who are suffering from injuries and illnesses not caused or aggravated by war service; and (v) medical treatment for nurses of the 1914-18 War.

Benefits are provided in respect of service in the 1914-18 and 1939-45 Wars, in the Korea and Malaya operations, with the British Commonwealth Far East Strategic Reserve, and the Special Overseas Forces including ex-servicemen from the Vietnam operations.

Repatriation Pensions—General

War pensions are payable, without general application of a means test, for war-caused or war-aggravated disabilities. Service pensions are payable in the main, to certain ex-servicemen 60 years and over (and ex-servicewomen 55 years and over) subject to a means test; no disability need be claimed.

War and dependant's pensions may be granted to persons, or to dependants of persons, who come within the following categories and who suffered death or disability: (i) arising from any occurrence before discharge, or overseas war service or on service in Australia within certain areas; (ii) attributable directly to service where the member served only in Australia; (iii) from pulmonary tuberculosis where the member served in any theatre of war; and (iv) from aggravation of a condition existing at enlistment where camp service exceeded six months.

Those who receive war pensions are also eligible for free medical and hospital treatment for their pensionable disabilities. With certain categories of pensioners, the eligibility for free treatment is widened to cover all disabilities. It is also possible for an ex-serviceman to qualify for free treatment for a disability without necessarily being granted a pension. Details for selected repatriation benefit rates are shown in the next table:

Repatriation Benefits
(\$ Per Week)

Benefit	Rate		
	1972-73 Budget	Amending Legislation (a)	1973-74 Budget
PAYABLE WITHOUT MEANS TEST			
Special Rate Pensions (b)—			
Member	48.00	51.10	55.60
Wife	4.05	4.05	4.05
Each Child	1.38	1.38	1.38
Intermediate Rate Pensions (c)—			
Member	34.00	35.10	38.80
Wife	4.05	4.05	4.05
Each Child	1.38	1.38	1.38
General Rate Pensions (d)—			
Member	14.00	16.00	19.00
Wife	max. 4.05	max. 4.05	max. 4.05
Each Child	max. 1.38	max. 1.38	max. 1.38
Special Compensation Allowances (e)—			
Members with 75 per cent to 100 per cent Assessed Incapacity	4.50 to 6.00	4.50 to 6.00	2.25 to 3.00
War Widows (f)—			
Pension	20.00	21.50	23.00
Domestic Allowance	8.50	8.50	9.50
War Orphans' Pensions (g)—			
One Parent Dead—			
Each Child	7.35	7.35	9.25
Both Parents Dead—			
Each Child	14.70	14.70	18.50

Repatriation Benefits—continued

(\$ Per Week)

Benefit	Rate		
	1972-73 Budget	Amending Legislation (a)	1973-74 Budget
MAXIMUM RATES PAYABLE SUBJECT TO MEANS TEST			
Service Pensions (b)—			
Member—Standard (Single Person)	20.00	21.50	23.00
Married	17.25	18.75	20.25
Addition for—First Child	4.50	4.50	5.00
Each Other Child	4.50	4.50	5.00
Wife's Pension (If She is Not a Pensioner) (i) ..	17.25	18.75	20.25
Guardian's Allowances—			
Where There is a Child Under Six Years or an Invalid			
Child Requiring Full-time Care	6.00	6.00	6.00
Other Cases	4.00	4.00	4.00

(a) Assented to in March 1973; effective from 7.12.72.

(b) Special rate pension (commonly referred to as the T.P.I. pension) is granted where an ex-serviceman, because of incapacity accepted as due to war service, is totally and permanently incapacitated—that is, to such an extent as to be precluded from earning other than a negligible percentage of a living wage—or has been blinded as a result of war service. Where an ex-serviceman is only temporarily totally incapacitated, an amount equal to the special rate pension is payable only for the period he is incapacitated. It may also be granted under certain conditions to an ex-serviceman who is suffering from pulmonary tuberculosis.

(c) Intermediate rate pension is payable where an ex-serviceman, because of the severity of his war-caused disabilities, can work only part-time or intermittently and therefore is unable to earn a living wage.

(d) General rate pension is payable to an ex-serviceman whose war-caused disabilities do not prevent him from working, although they may reduce his earning capacity. Pension from 10 per cent to 100 per cent of the maximum general rate is payable according to the degree of incapacity as assessed by a Repatriation Board, the Repatriation Commission or an Assessment Appeal Tribunal.

(e) A 'Special Compensation Allowance' is payable to certain general rate pensioners with assessed incapacity ranging from 75 per cent to 100 per cent. This pension is to be abolished in two stages—the 1973 reduction and final abolition in the 1974 Budget.

(f) Pension is payable to the widow of an ex-serviceman whose death has been accepted as due to his war service or who has died from causes not due to war service but was receiving, at the time of his death, or is later adjudged to have been entitled to receive, the special rate of war pension, one of the rates payable to double amputees or one of the special rates payable in respect of tuberculosis or who served in a theatre of war or who died as a direct result of pulmonary tuberculosis.

Domestic allowance is also payable to a war widow if she has a dependent child or children under 16 years, or is 50 years of age or over, or is permanently unemployed or has a child 16 years or over who is undertaking education or training approved by the Commission and who, in the opinion of the Commission, is not receiving an adequate living wage.

(g) War orphans' pensions are paid for the children of an ex-serviceman whose death occurred in circumstances similar to those mentioned in (f) above. The pensions continue until the children attain 16 years.

(b) Service pension, which is broadly the equivalent of the age and invalid pensions payable to civilians, is payable, subject to a means test, to an ex-serviceman who: (i) is suffering from pulmonary tuberculosis; or (ii) has served in a theatre of war (or in the case of a woman, served abroad or embarked for service abroad) and has attained, if a man, the age of 60 years, or if a woman, 55 years; or is permanently unemployable.

Where a service pension is granted to an ex-serviceman a service pension may also be paid to his wife and the first four eligible children, but the amount for a first child is normally paid as an addition to the ex-serviceman's pension.

Where the ex-serviceman's wife is receiving a social service pension, a tuberculosis allowance or a service pension as a 'member of the forces', the rate payable to him is the married rate unless, because of illness or infirmity of either or both of them, they cannot live together in a matrimonial home, then the rate payable will be the standard rate.

Guardian's allowance may be payable to a service pensioner who is unmarried, widowed, divorced or married but separated and who has the custody, care and control of a child.

Supplementary assistance, at a maximum rate of \$4 per week, is payable to: (i) a single service pensioner subject to the payment of rent (or of board and lodging) and to a means test; or (ii) a married service pensioner on the same basis as a single service pensioner. The total supplementary assistance is divided equally between the husband and the wife, a maximum of \$2 per week being payable to each.

- (i) Wife's service pension of \$20.25 per week is payable, subject to a means test, to a wife who is not in receipt of a pension from the Department of Social Security or a service pension as an ex-servicewoman.

War Pension Payments

The following table shows, for Tasmania, the number of pensions in respect of ex-servicemen and their dependants, together with expenditure on war pensions:

War Pensions: Pensioners and Payments

Year				Number of Pensions Current at 30 June				Expenditure During Year (c)
				Incapacitated Ex-Servicemen	Dependants of—		Total (b)	
					Incapacitated Ex-Servicemen	Deceased Ex-Servicemen (a)		
1967-68	..	..	..	8,610	14,324	2,073	25,015	\$'000 6,790
1968-69	..	..	..	8,644	13,731	2,100	24,485	7,622
1969-70	..	..	..	8,635	13,040	2,123	23,798	7,831
1970-71	..	..	..	8,646	12,493	2,106	23,254	8,230
1971-72	..	..	..	8,580	11,874	2,049	22,512	9,094
1972-73	..	..	..	8,503	10,461	2,941	21,905	9,857

(a) Includes war widows' pensions.

(b) Includes miscellaneous pensions not specified under the 'ex-servicemen' details, e.g. Seamen's War Pensions and Allowances.

(c) Includes widows' allowances.

At 30 June 1972 the proportion of ex-servicemen in Tasmania receiving war pensions in respect of service in the 1914-18 War was 13.5 per cent; the 1939-45 War, 81.4 per cent; the Korea and Malaya operations, 2.3 per cent, and other operations, 2.8 per cent.

Service Pension Payments

The following table shows, for Tasmania, the number of service pensions in respect of ex-servicemen and their dependants, and expenditure on pension payments:

Service Pensions: Pensioners and Payments

Year	Number of Pensions Current at 30 June				Expenditure During Year
	Ex-Servicemen	Dependants of—		Total	
		Living Pensioners	Deceased Pensioners		
1967-68	1,689	898	107	2,694	\$'000 1,014
1968-69	1,712	791	107	2,610	1,093
1969-70	2,039	976	117	3,132	1,404
1970-71	2,074	1,003	118	(a)3,197	1,604
1971-72	2,131	1,049	116	(a)3,298	1,841
1972-73	2,638	1,402	122	4,162	2,827

(a) Includes act of grace pensions.

Eligibility and Rates for Service Pensions

Service and dependant's pensions may be granted to persons (or to dependants of persons) who come within the following categories and satisfy a means test: (i) men aged 60 or over who served in a theatre of war or women 55 years and over who served abroad; (ii) men and women with similar service particulars who are totally unemployable; (iii) sufferers from pulmonary tuberculosis not qualifying for a war pension on this ground. The conditions governing the means test are the same as for old age pensions described earlier in this Chapter.

Medical Services

To discharge these functions in Tasmania, the Repatriation Department maintains a branch office, a general hospital and an artificial limb and appliance centre in Hobart. Facilities exist at the Repatriation General Hospital for medical treatment of hospitalised patients and specialist services for out-patients. Generally, treatment for out-patients throughout the State is provided by doctors whom the Department has appointed as Local Medical Officers. People entitled to treatment can select a doctor from the panel of L.M.Os and receive treatment at departmental expense. Payment for treatment in hospitals other than the Repatriation General Hospital is met by the Department only in certain circumstances.

Extensions of benefits announced in the 1973 Budget included: (i) Free treatment for all veterans of the Boer War and the 1914-18 War. This includes medical, hospital, dental, ophthalmological and para-medical treatment and, subject to a contribution of \$17.85 per week, treatment in nursing homes. (ii) Ex-servicemen and women, who have served in a theatre of war and who are suffering from malignant cancer, are for that condition eligible for free medical and hospital treatment and, subject to a contribution of \$17.85 per week, to nursing home treatment. (iii) The facilities of the Repatriation Artificial Limb and Appliances Centres are to be expanded to provide free artificial limbs to the general public.

Soldiers' Children Education Scheme*Eligible Children*

Educational assistance is granted to ex-servicemen's children in particular circumstances: (i) if the parent has died from causes attributed to war service or was receiving war pension for specific serious disabilities at the time of death; (ii) if the parent, as a result of war service, is blinded, totally and permanently incapacitated or receiving the special rate pension for pulmonary tuberculosis.

Benefits

For children under 12 years, the scheme pays the cost of school requisites and fares. At secondary level, fortnightly maximum payments are: under 14 years, \$6.50; 14 and under 16, \$9.80; 16 years and over, \$21.50 if both parents are living and \$28.30 if only one parent is living. At tertiary level, those living at home may receive \$30.77 per fortnight and those living away from home, \$50.00. For tertiary and professional courses, students may receive grants to pay for text books, equipment, fees and fares. The means test used to determine whether the maximum shall be paid does not relate to the parent's income but takes into account grants the student is receiving from scholarships, cadetships, etc.

HEALTH SERVICES**State Health Services***General*

The State Department of Health Services is responsible for the maintenance of the health of the community, the prevention of disease and the provision of government hospital and medical services. The Department is under the jurisdiction of the Minister for Health, with the Director-General of Health Services as its permanent head. The headquarters of the Department controls two divisions, each under a director, namely Public Health and Tuberculosis. Three specialised services are also part of the Department: the State Health Laboratory under the Director of Pathology; the Government Analyst and Chemist Laboratory under the control of the Government Analyst; and Cardio-Vascular Services under the control of a Director.

The following table shows expenditure from Consolidated Revenue for a five-year period:

**Department of Health Services: Expenditure from Consolidated Revenue
(\$'000)**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Administration, Head Office	252	r 253	257	325	348
Hospital and Medical Services—					
Administration	r 211	r 211	r 219	(a) r 235	(a) 295
Grants to Hospitals	6,619	8,087	9,442	10,854	12,085
Medical Services, Country Districts ..	149	146	167	188	198
District Nursing Service (b)	189	22	1	..	..
Dental Health Service	459	490	504	599	698
State Laboratory, Pathology	4	4	4	4	4
National Fitness Section	54	58	66	78	87
Nurses' Registration Board	5	9	7	7	7
Government Analyst and Chemist ..	65	77	81	110	139
St John's Park Hospital	1,191	1,261	1,378	1,577	1,763
Public Health—					
Administration and Inspectors ..	184	213	245	308	369
School Medical Service	143	150	161	185	197
Child Health Service	161	173	192	218	242
Mothercraft Home	86	95	106	116	127
Road Safety .. ..	..	..	4	42	94
Tuberculosis Division—					
Administration	174	184	190	203	209
Chest Hospitals	325	210	217	244	246
Psychiatric Services—					
Administration	168	(c)	(c)	(c)	(c)
Mental Health Hospitals	2,167	(c)	(c)	(c)	(c)
Miscellaneous Grants and Expenses r ..	(d) 453	(d) 404	453	(a) 590	(a) 651
Total	13,058	12,048	13,691	15,884	17,758

(a) Expenditure on the enquiry into the running of the Launceston General Hospital has been included in Miscellaneous Grants and Expenses: 1970-71, \$12,000; 1971-72, \$46,000.

(b) District Nursing Centres administered from 1 July 1968 by Public Hospitals.

(c) Administered by Mental Health Services Commission from 1 July 1968.

(d) Includes Royal Commission on fluoridation of water supplies: 1967-68, \$22,000, 1968-69, \$2,000.

Headquarters

Responsibilities of the Headquarters of the Department of Health Services include:

- (i) public hospital management advisory services and the licensing of private hospitals and other medical establishments under the *Hospitals Act 1918*;
- (ii) District Medical Service;
- (iii) School Dental Service;
- (iv) Nurses' Registration Board and Dental Mechanics' Registration Board;
- (v) Tourist Nursing Service;
- (vi) legislation concerned with health and allied matters;
- (vii) certain specialist medical services;
- (viii) State Drug Advisory Committee;
- (ix) liaison with the health departments of other States and the Commonwealth (the Director-General of the State Department is a member of the National Health and Medical Research Council and the (National) Hospital and Allied Services Advisory Council); and
- (x) liaison with professional, medical, dental and nursing associations.

The Director-General is the controlling authority under the Hospital Employees' Award, the Medical Officers' Award and the Nurses' (Public Hospitals) Award. Headquarters also controls and maintains Crown property occupied by the various sections of the Department and deals with the appointment and salaries of staff who are not officers of the Public Service.

Division of Road Safety

This Division is primarily concerned with development and implementation of government road safety policy and legislation and co-ordinating government and private facilities to reduce road accidents.

The Division operates a State-wide schools road safety education programme. In addition to school education, the Division is responsible for general road safety publicity and public education and administers activities of the Road Safety Council of Tasmania.

School Dental Health Service

This service, available free to children attending school, aims to examine and treat every child each six months, but continued staff shortages have prevented this from happening. At the end of June 1973, 29 permanent clinics were operating at urban centres throughout the State while 23 mobile units provided services in most country districts.

An orthodontic service is based in Hobart; mobile and permanent clinics give a State-wide therapeutic service.

Dental Nursing: Adopting the New Zealand system, Tasmania became the first Australian State to develop a School of Dental Nursing. Ten first-year and 10 second-year State students are trained, together with 10 students on behalf of the Commonwealth Government (these are employed in the A.C.T. after graduation). Six classes have graduated since January 1968 after two-year courses, and the graduates have been appointed to clinics. The School, with a residential hostel attached providing accommodation for 30 students, is located in Hobart, and up to 90 patients a day are treated there. It is expected that a total of approximately 30 dental nurses will work in rural districts; a recognised dental nursing certificate is required for a nurse to be appointed to such a field position.

Fluoridation

In 1953 Beaconsfield became the first local government authority to add fluoride to its water supply and Launceston followed in 1961. In 1964 Hobart became the first Australian capital city to add fluoride to its water supply.

A Royal Commission inquired into fluoridation of water supplies in 1968. It reported favourably and recommended its extension throughout the State. The State Government passed the *Fluoridation Act* 1968, setting up a Fluoridation Committee with power to recommend to the Minister for Health the fluoridation of any public water supply and to oversee fluoridation operations. It is required to report annually to the Minister who must lay the report before Parliament.

By July 1972 fluoridation had been extended to the City of Glenorchy, the urban portions of the Clarence and Kingborough Municipalities, the towns of Devonport, Burnie, Bridgewater, Brighton, Kempton, Pontville, New Norfolk, Richmond, Sorell-Midway Point, Campania, Cambridge, Kingston, Blackmans Bay and Margate.

District Medical Service

In 1937 the Government undertook to help the more remote municipalities obtain medical services; at present, participating municipalities levy a rate under the *Local Government Act* 1962, as amended, and meet between one-half and one-third of the cost of the scheme.

The scheme provides a general practitioner service free to all residents of the municipality for consultations and home visits. A surgery is usually attached to the district medical officer's house, and branch surgeries are sometimes located elsewhere within the district. Attention out-of-hours is charged for in accordance with a set scale, as are insurance medical examinations, compensation treatment and attention to visitors to the State.

As well as general practice, activities include the dispensing of drugs if no chemist is available; duties as Medical Officer of Health (under the *Public Health Act*) if a municipal council requests it; in some cases duty as superintendent, if there is a district hospital within the municipality; attention to district nursing hospitals; and post mortem examinations.

Pharmaceutical Services Section

The Pharmaceutical Services Section has numerous advisory, supervisory and regulatory functions under regulations and legislation relating to narcotics, poisons, dangerous and therapeutic drugs.

Alcohol and Drug Dependency Board

This Board was established under the *Alcohol and Drug Dependency Act* 1969; its members are appointed by the Minister for Health from the medical, pharmaceutical, social service, police and legal professions. Its functions are: (i) to keep under review all matters relating to the prevention and treatment of alcohol and drug dependency; (ii) to advise in the declaration and control of substances as drugs under the Act; and (iii) to act as a board of appeal for applications by patients for discharge.

The treatment and rehabilitation of sufferers of alcohol and drug dependency is handled by the Mental Health Services Commission; the Commission's acute psychiatric units (at Wynyard, Devonport and Launceston) the Royal Derwent Hospital, the Royal Hobart Hospital and the John Edis Hospital have been declared treatment centres.

State Drug Advisory Committee

This advises on the nature, strength and variety of drugs to be supplied to public hospitals and institutions by the medical store of the Supply and Tender Department. It is not concerned with administration but helps the store to avoid stocking drugs with different names but similar properties, and stocking drugs not likely to be required.

Nursing

Nursing training is under the control of the Nurses' Registration Board. Of the State's nursing training schools, eight are general, six midwifery, two child health, one psychiatric and one geriatric. There are nine general, one psychiatric and one geriatric training schools for auxiliary nurses (nursing aides).

Tourist Nursing Service

This service is based on the fact that trained nursing sisters from outside Tasmania like to visit the State and have a working holiday. These 'tourist nurses' are employed for short periods in hospitals or district nursing centres. Not more than two months service at any one time is required of a sister in any one place but she may stay longer.

Division of Public Health

General

The Division of Public Health has responsibility for the preventive medical services of the State. The Director is responsible for the operation of the *Public Health Act* 1962 (as amended) and the control of medical officers of health and other health officers employed by the Department of Health Services and municipalities throughout the State. A major responsibility is public immunisation programmes, conducted through the municipalities; preparations distributed include the Sabin anti-poliomyelitis vaccine and the triple antigen vaccine (against whooping cough, tetanus and diphtheria). The Division is responsible for the Nutrition Advisory Service; industrial hygiene; environmental sanitation; pure food and pure drug quality control; and the public health aspects of the building regulations. Other major functions are discussed separately in the following sections.

Notifiable Diseases

Certain diseases, including serum hepatitis, food poisoning in two or more associated cases, ornithosis, salmonella and shigella infections, are notifiable under the *Public Health Act*, the aim being to prevent or check their spread.

Special conditions apply to venereal diseases. Persons suffering from them must not marry until cured, or engage in the manufacture or distribution of foodstuffs, and are liable to arrest and detention if they fail to continue treatment until cured.

Quarantine provisions and tuberculosis are dealt with in later sections.

The following table shows the incidence of notifiable diseases in Tasmania for a five-year period:

Notifiable Diseases Reported to Department of Health Services
Number of Cases

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Amoebiasis .. .. .	..	..	1	..	..
Brucellosis .. .. .	..	2	..	..	..
Diphtheria .. .. .	..	1	1	..	..
Food Poisoning in Two or More Associated Cases (a)	4	..	..	2	5
Gonorrhoea	209	117	75	116	112
Hydatids	17	8	17	8	9
Infantile Diarrhoea and Enteritis (b)	15	..	..	..	..
Infectious Hepatitis	569	552	400	319	186
Leptospirosis .. .. .	..	..	3	..	12
Malaria .. .. .	..	..	2	1	1
Meningitis (b)	1	..	..	..	..
Nephritis	1	..	..	..	..
Ornithosis (a)	1	..	..	..	..
Poliomyelitis .. .. .	..	1	..	..	..
Rheumatic Fever (b)	5	..	..	..	..
Rubella (a)	55	..	..	..	..
Salmonella Infections (a)	1	16	10	14	12
Scarlet Fever (b)	39	..	..	..	..
Serum Hepatitis (a)	1	..	..	..	..
Shigella Infections (a)	15	27	6	1	1
Syphilis	9	3	7	7	9
Tetanus .. .. .	..	..	1	2	1
Tuberculosis	54	60	48	48	43
Typhoid Fever (incl. Paratyphoid) .. .. .	..	3	1	..	2
Urethritis .. .. .	..	..	3	7	2
Total	996	790	575	525	395

(a) From November 1967 these diseases became notifiable.

(b) From November 1967 these diseases were no longer notifiable.

Child Health Service

Child health nurses attached to child health centres advise mothers on the care and upbringing of their babies and younger children. In 1972 there were 98 centres and 15 travelling units. Voluntary child health committees working for the centres raise money for furnishings and equipment and buildings erected by the Department. The functions of the centres include examination of babies, maintenance of individual histories, and advice on diets, feeding techniques and hygiene. Phenistrix tests are carried out for the detection of phenylketonuria, a rare complaint which results in mental deficiency if not treated in infancy. New-born babies are visited in their homes by the sisters; details of births and addresses are supplied by the hospitals.

The Mothercraft Home: This home, located in Hobart, provides training for qualified nursing sisters who want to gain child health nursing certificates and for women who want to become mothercraft nurses. It accommodates children under two years who need care or who cannot be looked after at home, and mothers learning to look after children or having feeding problems. When space is available, children under two years can be boarded in the Home for short periods.

School Health Service

This is available free to children under 16 years at both State and non-government schools. The aim is for an annual inspection at each school by a medical officer, but staff shortages have limited this to examinations at school entry, next at 11, and finally at 15 years. Children requiring review or examination for any condition causing concern are also examined by school doctors who particularly look for conditions likely to affect a child in a school situation. Parents can make appointments for their children to be examined at centres in Hobart, Launceston, Devonport and Burnie.

School nursing sisters visit schools regularly to supervise the health and hygiene of pupils. They maintain medical records, perform cleanliness inspections, test sight and hearing, assist at medical examinations and follow-up defects notified. They contribute to health education, research projects and may organise immunisation sessions at their schools.

Health Education

The Health Education Council is composed of representatives of the Division of Public Health, the Education Department, the Mental Health Services Commission, the Adult Education Board and several other interested persons. The Council's aim is public education by distribution of information on health matters.

National Fitness Section

This is concerned with putting into effect the Tasmanian National Fitness Council's policy, which is the promotion of community health and personal fitness; this involves the promotion and extension of physical recreation and amateur sport, fitness and training programmes, co-ordination of youth work, and assistance to existing youth and recreation groups. The main cost is met by the State Government (\$100,256 in 1972-73) and a small grant is made by the Commonwealth Government. Close contact is maintained with local government authorities and community organisations interested in the various aspects of community fitness and recreation. Assistance is given in the development of indoor recreation centres, camping facilities and programmes, amateur sports, outdoor activities such as canoeing, mountain and bush expeditions and adventure activities generally. Executive services are provided for the Duke of Edinburgh Award Scheme and for the Youth Council of Tasmania.

Mental Health Services Commission

Introduction

Significant advances have been made in the field of clinical psychiatry and in the treatment of mental illness during the past three decades. The development of psychotropic drugs, new therapeutic techniques and improved methods of clinical practice have revolutionised the mental hospital from an institution for the incarceration of lunatics to a modern hospital geared to the care and rehabilitation of the sufferers of psychiatric disorders.

Administration

The Mental Health Services Commission was established under the *Mental Health Services Act* 1967, following an interdepartmental investigation into psychiatric services in Tasmania. The Commission comprises three members: a Medical Commissioner (who also holds the post of Director of Psychiatric Services), a Clinical Commissioner (being Professor of Psychiatry at the University of Tasmania) and an Administrative Commissioner. Since 1 July 1968, the Commission has operated as a statutory authority, completely separate from the Department of Health Services.

Ultimately, the Mental Health Services Commission aims to provide integrated community services and to this end has established acute psychiatric units at Launceston, Wynyard and Devonport. These regional units are closely linked to the public hospital complexes.

In 1971 the psychiatric unit at the Royal Hobart Hospital became fully operational providing facilities for the investigation and treatment of mental illness.

In September 1972, the Commission formally took over the Tasmanian Chest Hospital at Creek Road Hobart and re-named the institution the John Edis Hospital. The facilities at this hospital have enabled the services for alcoholism and psychiatric disorders, formerly carried out at Clare House, New Town, to be expanded.

The principal institution under the control of the Commission is the Royal Derwent Hospital.

Royal Derwent Hospital

The Royal Derwent Hospital, at New Norfolk, is the State's principal centre for the treatment of psychiatric disorders and for caring for the mentally retarded. The hospital is divided into six sections and patients are allocated to the sections on the basis of their medical diagnosis. The basic division of patients is into those who are psychiatric patients and those who are suffering from mental subnormality.

The following table shows the diagnosis of mental illness of patients in the Royal Derwent Hospital:

Royal Derwent Hospital (a)
Diagnosis of Mental Disorder of Patients, 1971-72

Mental Disorder	Patients Admitted (b) 1971-72			Patients at 30 June 1972		
	Males	Females	Total	Males	Females	Total
Senile and Pre-senile Dementia ..	13	33	46	13	75	88
Alcoholic Psychosis	7	6	13	14	1	15
Psychosis with Intracranial Infection ..	..	..	..	4	2	6
Psychosis With Other Cerebral Condition	8	7	15	10	16	26
Psychosis With Other Physical Condition	3	2	5	3	1	4
Schizophrenia	67	55	122	140	85	225
Affective Psychoses	19	51	70	11	24	35
Paranoid States	4	6	10	8	12	20
Other Psychoses	2	4	6	..	..	..
Neuroses	16	62	78	4	11	15
Personality Disorders	68	28	96	14	7	21
Alcoholism	214	37	251	20	5	25
Drug Dependency	4	11	15	..	4	4
Transient Situational Disturbances ..	15	14	29	3	1	4
Behaviour Disorders of Childhood ..	3	5	8	4	2	6
Mental Disorder not Specified as Psychotic Associated with Physical Conditions	7	4	11	9	9	18
Mental Retardation—Borderline ..	5	1	6	4	8	12
Mild	11	7	18	31	23	54
Moderate	16	9	25	66	59	125
Severe	10	5	15	61	76	137
Profound	3	1	4	27	31	58
Unspecified	3	2	5	15	7	22
Other	11	2	13	3	1	4
Total	509	352	861	464	460	924

(a) Includes Millbrook Rise Hospital.

(b) Excludes those returned from leave.

The following table shows the number of patients who were admitted, discharged or who died:

Royal Derwent Hospital
Number of Patients Admitted, Discharged and Deaths, 1971-72

Particulars	Males	Females	Total
Patients at Beginning of Year	467	473	940
Patients Admitted—			
First Time	239	136	375
Re-admitted	270	216	486
Returned from Leave	80	31	111
Total	589	383	972
Patients Discharged, etc.—			
Discharged from Hospital	338	292	630
Proceeded on Leave	228	79	307
Died	26	25	51
Total	592	396	988
Patients at End of Year	464	460	924

Other Institutions

Hobart: (i) Clare House Day Hospital was established in 1964 for the assessment and treatment of alcoholics. Its role was broadened to encompass a wide range of psychiatric disorders and as a result of the increasing demand for facilities of this nature the John Edis Hospital is now conducting the services formerly carried out by Clare House.

(ii) The Combined Children's Centre was opened in February 1968 for the treatment of psychiatrically disturbed children referred to the Centre by private medical practitioners, the Royal Hobart Hospital, Social Welfare Department, School Medical Service and the Guidance Branch of the Education Department. At 30 June 1972 there were 606 children under treatment.

(iii) The Day Minding Centre was opened in September 1968 to care for severely mentally retarded children, many of whom are also physically retarded. At 30 June 1972 30 children were enrolled at the Centre.

Launceston: The Lindsay Miller Clinic at the Launceston General Hospital reported the following attendance figures during 1971-72: out-patient visits, 4,244; day patient visits, 2,244; in-patients, 819.

North-West: In-patient facilities are provided at the Mersey General Hospital and the Spencer Division of the North-Western General Hospital.

Various centres provide facilities for out-patient treatment on the north-west coast. During 1971-72, the North-Western General Hospital, Spencer Division, treated 628 out-patients; Burnie Division, 1,626; Smithton District Hospital, 214; Devonport and Ulverstone Clinics, 1,452.

Division of Tuberculosis

The Division is concerned with diagnosis, treatment and after-care. Under a Federal arrangement the Tasmanian Government conducts a campaign against T.B. and is reimbursed by the Commonwealth Government for approved capital and maintenance expenditure.

An allowance is paid by the Commonwealth Department of Social Security to T.B. sufferers to encourage them to give up work, to minimise the spread of the disease, and to provide a basis for better treatment. The allowance is subject to a means test on income (but not on property) and provides \$21.50 a week for a single person in hospital and \$24.75 weekly while at home; married sufferers at home or in hospital are paid \$40.75 per week plus \$4.50 for each dependent child.

Patients are treated at the Royal Hobart Hospital. The X-ray campaign has led to a reduction in demand for in-patient treatment and to generally shorter periods in hospital.

The following table shows the confirmed diagnosis of tuberculosis cases notified in Tasmania over a five-year period:

**New Cases Notified to Tuberculosis Division
Classification by Diagnosis and by Sex**

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Pulmonary Males	31	37	25	30	25
Females	12	12	12	8	12
Tuberculous Pleural Effusion Males	1	..	2	..	2
Females	..	..	..	..	..
Tuberculous Meningitis Males	..	..	..	1	..
Females	..	..	1	..	1
Primary Tuberculosis Males	..	..	..	..	..
Females	..	..	..	..	..
Non-pulmonary Cases Males	2	5	3	2	1
Females	2	3	3	4	1
All New Cases Males	34	42	30	33	28
Females	14	15	16	12	14
Persons	48	57	46	45	42

State Controlled Hospitals

General

In Tasmania, medical establishments include hospitals, nursing homes, geriatric establishments, convalescent homes, orthopaedic units, etc. Some are privately administered while the State Government accepts the major financial responsibility for others; in the case of the latter group, control is either direct or exercised through hospital boards.

Institutions controlled by the State include four general hospitals, 14 district hospitals, 13 district nursing hospitals with bed accommodation, one mental hospital, two maternity hospitals, one chest hospital and three hospitals for the aged. (The Department of Health Services directly administers the Chest hospital and one hospital for the aged.) These institutions could all legitimately be described as 'public'. However, in the tables in this section, the term 'public' is applied only to the general and district hospitals, the other types of institutions being specified separately.

General Hospitals (Public)

Hospitals providing all facilities and specialised treatment are the Royal Hobart, Launceston General, Mersey General (at Latrobe) and North-Western General (with divisions at Burnie and Wynyard). The Queen Alexandra (Hobart) and the Queen Victoria (Launceston) are maternity hospitals.

Specialist treatment is available at general hospitals in obstetrics, gynaecology, orthopaedics, urogenital surgery, plastic and reconstructural surgery, neuro-surgery and neurology, radiology, pathology, radiotherapy, psychiatry and ophthalmology; skin diseases and venereal diseases are also treated and clinics operate in thoracic medicine and surgery. An emergency obstetrical service, with specialists based in Hobart and Launceston, provides a free service to the smaller public hospitals, district nursing hospitals and district medical officers outside the two cities.

The Lady Clark Hospital, an annexe of the Royal Hobart Hospital, is a rehabilitation and physiotherapy centre with both in-patient and out-patient facilities.

The Peacock Convalescent Hospital in Hobart is run by a committee of management, most of its patients being referred from the Royal Hobart Hospital.

All district nursing hospitals, formerly administered by the Department of Health Services, have been administered as annexes by various general or district hospitals since 1 July 1968, the parent hospital in each case being selected on a geographical basis.

Fees

The daily general ward fees charged in the State-controlled hospitals are not much lower than those charged in multiple bed wards in private hospitals. However, the former fees are all-inclusive (i.e. covering medical attendance, surgery, although additional charges may be made for radiology, pathology and electroencephalography) while the latter cover only accommodation and general nursing. Under the 'personal patient' scheme, a patient in the Hobart and Launceston general hospitals may have his own doctor, if he is an honorary doctor at the hospital, for the payment of an additional fee. Voluntary insurance with hospital fund organisations plus Commonwealth hospital benefits enable most patients to meet the fees charged.

Hospitals for the Aged and Invalid

The State Government administers three hospitals caring for the aged and for invalids. In the table that follows, the distinction is made between 'general' and 'hospital' beds; 'general' refers to beds available for inmates not receiving treatment in the hospital sections of the institutions.

Government Hospitals for the Aged, 1971-72

Institution	Average Daily Number of Inmates			Beds Available		
	Males	Females	Total	General	Hospital	Total
Cosgrove Park (a) ..	124	114	238	141	134	275
St John's Park	243	196	439	193	309	502
Spencer (b)	18	13	31	10	25	35
Total	385	323	708	344	468	812

(a) Cosgrove Park is administered as part of the Launceston General Hospital.

(b) This is a geriatric wing of the Wynyard Division of the North-Western General Hospital (previously the Spencer Hospital).

It is planned to develop St John's Park (the southern State geriatric hospital) into a comprehensive complex of services, including in-patient services for children and adults requiring hospitalisation because of all forms of disablement e.g. spastic diseases, mental retardation, crippled children and other handicapped persons and disabled persons generally. Domiciliary and day hospital therapeutic and home help facilities will be based on this general 'rehabilitation' complex.

District Hospitals (Public)

These do not provide the diverse range of services available in the general hospitals, and do not have resident medical officers. They are located at Beaconsfield, Campbell Town, Currie, Franklin, Longford, New Norfolk, Ouse, Queenstown, Rosebery, Scottsdale, Smithton, St Marys, Ulverstone, and Whitemark.

Finances of State Controlled Hospitals

The following table gives a financial summary of the operation of State controlled hospitals and hospitals for the aged ('public' hospitals in the table include general and district hospitals):

State Controlled Hospitals and Hospitals for the Aged
Receipts and Payments (a) 1971-72
 (\$'000)

Particulars	Hospitals (excluding Mental)				Mental Hospital	Hospitals for the Aged
	Public (b)	Chest	Maternity (c)	Total		
Receipts—						
Government Aid—						
State	11,071	..	575	11,646	2,773	1,374
Commonwealth	1,021	246	8	1,275	34	771
In-patient Fees	4,318	..	607	4,925	372	368
Out-patient Fees	283	..	..	283	..	..
Other	49	..	1	50	22	18
Total	16,742	246	1,191	18,179	3,201	2,532
Payments—						
Salaries and Wages	12,055	202	904	13,161	2,505	1,980
Provisions	784	(d)	74	(d)	(d)	201
Domestic Supplies	1,237	(d)	104	(d)	(d)	201
Dispensary, etc.	1,740	(d)	41	(d)	(d)	40
Other	1,223	(d)	76	(d)	(d)	108
Total	17,039	246	1,198	18,483	3,231	2,530

(a) Excludes expenditure from State Loan Fund.

(b) Includes maternity wards in public hospitals.

(c) Excludes maternity wards in public hospitals.

(d) Not available on a comparable basis; included in 'Total'.

Staff and Patients in State Controlled Hospitals

The following table gives a summary of the main statistics relating to staff and patients in State controlled hospitals and hospitals for the aged:

State Controlled Hospitals and Hospitals for the Aged
Staff, Accommodation and In-patients

Particulars	Hospitals (excluding Mental)		Mental Hospital		Hospitals for the Aged	
	1970-71	1971-72	1970-71	1971-72	1970-71	1971-72
Hospitals and Homes	21	21	1	1	3	3
Nursing Staff—	47	42	181	195	111	83
Males .. .. .	..	..	..	..	..	..
Females	1,865	1,891	179	182	195	155
Beds Available	2,203	2,150	1,030	1,028	806	812
In-patients—						
Total Number Treated—						
Males	19,111	20,051	977	1,056	608	606
Females	29,098	31,535	888	856	484	496
Daily Average Number of Patients						
During Year—						
Males	580	579	469	464	378	385
Females	841	870	479	474	334	324
Persons	1,421	1,449	948	938	712	709
In-patient Costs—						
Total \$'000	13,611	16,224	2,940	3,230	2,267	2,532
Daily Average Per Patient \$	r 26.32	30.69	8.49	9.43	8.72	9.78

Private Medical Establishments

The above establishments, 65 in number, are operated by charitable and church organisations and by private individuals or organisations. Most are concerned with care of the aged but five are hospitals with a more general purpose.

All 65 are registered under Part III of the *State Hospitals Act* but five are also registered under the Federal *National Health Act* as hospitals. These are Calvary, St John's and St Helen's in Hobart, and St Luke's and St Vincent's in Launceston, all providing medical and surgical services. Of the remaining 60 establishments, 47 are licensed to provide nursing home care; and 13 to provide accommodation for ambulant patients only.

The largest units in the non-hospital group are: Hobart area, St Ann's Rest Home (110 beds), Freemasons Homes (93), Mary's Grange (91), Strathaven Lodge (89), Queen Victoria Home for the Aged (80); Launceston area, Ainslie House (95); north-western area, Meercroft Home for the Aged (92), Eliza Purton Home for the Aged (80).

State Health Laboratory

The State Health Laboratory is under the control of the Director of Pathology. Apart from providing certain pathological services to the Royal Hobart Hospital, other hospitals and to doctors, the laboratory provides special bacteriological and cytological services.

The Laboratory is located at the Royal Hobart Hospital; prior to 1965 special tests had to be done in Melbourne, but equipment installed in that year now enables all work to be done in Tasmania. Specimens from suspected T.B. sufferers, discovered in the compulsory chest X-ray programme, are examined and uterine and other cancers can be discovered by the Papanicolaou smear test. Tasmania was the first Australian State to introduce this test on a large scale; early diagnosis by this simple and effective method, particularly in women who show no symptoms, usually makes possible the cure of this type of cancer. Mass screening of new-born babies is done to correct errors of inborn metabolism, especially phenylketonuria. Other work includes analysis of food, water and milk samples.

Government Analyst and Chemist Laboratory

This laboratory analyses a wide variety of foods, drugs and other substances and undertakes work for Government departments and the public. Its work includes food and agricultural chemistry, forensic chemistry and toxicology, analyses for industrial hygiene purposes, water and corrosion problems, and other matters such as blood alcohol examinations for *Road Safety (Alcohol and Drugs) Act* purposes.

Other Health Matters

Child Health Institutions

These are medical institutions run by the State or subsidised by public funds. They provide treatment and supervision along with general education. The Sight Saving School, School for the Blind and Deaf, Talire (for retarded children) and Wingfield (for orthopaedic patients) are government institutions for children with particular defects.

Ambulance Services

The Ambulance Commission of Tasmania co-ordinates services throughout the State and is responsible to the Minister for their effective operation. Ambulance Boards, centred on Hobart, Launceston, Devonport and Burnie, control services in the adjacent local government areas. A few municipalities, however, operate services outside the *Ambulance Act*. The total Government grant to ambulance services, both under Board and independent control, was \$256,000 in 1972-73.

Ambulance services under control of the four Boards provide free transport for ratepayers, occupiers and pensioners. In addition to receiving Government subsidies, their income is derived from fees (payable by visitors) and municipal grants.

The Ambulance Commission has adopted the training standards of the Victorian Ambulance Officer's Training School.

Royal Flying Doctor Service

This was established in Tasmania in 1960 and has as its purpose the provision of medical and dental services to persons in isolated areas. If the illness or injury is serious, a doctor flies to the patient and if necessary brings him back to hospital. The ambulance services receive the calls, make arrangements to charter aircraft and supply medical equipment. The Commonwealth and State Governments make an annual grant towards operational expenses.

Blood Transfusion Service

Prior to 1954, the Australian Red Cross Society, which operates the Service, was assisted only by the State Government; since then, a grant equal to 30 per cent of operating expenses has been made by the Commonwealth Government and 60 per cent by the State. The combined grant in 1972-73 was \$88,000.

Municipal Health Functions

Municipal councils and city corporations possess wide powers and responsibilities in public health. They organise triple antigen immunisation campaigns against diphtheria, whooping cough and tetanus, and vaccinations against poliomyelitis and smallpox. (These are available without charge to children under 17 years.) They control the condemnation of sub-standard dwellings, the effective disposal of sewerage and drainage, the provision of garbage and night soil services, the construction of reservoirs and the reticulation of water. A medical officer of health, often appointed by two councils, is responsible, among other things, for inquiring into the causes, origins and distribution of diseases; for investigating influences affecting the public health of the district; for directing and supervising the municipal health inspectors in the execution of the *Public Health Act*; for inspection of local certificates of notification of infectious disease and direction of control of such disease; for reporting the existence of any nuisance; inspection of any animal carcass for sale for human consumption; and for inspecting any premises where milk or milk products are produced or stored and for reporting on health of inmates or animals on the premises.

Commonwealth Department of Health

General

The Department is concerned in Tasmania with the maintenance of a quarantine service involving supervision of persons, animals, plants and goods from overseas; the provision of pharmaceutical benefits; the payment of grants for free milk to school children; tuberculosis allowances; home nursing, mental institutions and other subsidies; the control and maintenance of health laboratories at Hobart and Launceston; the Acoustic Laboratories in Hobart and Launceston; co-operation with the State Department of Health Services in planning and taking measures to improve public health, including the anti-tuberculosis and anti-poliomyelitis campaigns, and National Fitness; the conduct of certain medical examinations; and the supervision of the medical aspects of radio and television advertising and talks on medical matters.

On 1 March 1973 the Health Insurance and Benefits Branch of the Commonwealth Department of Health was transferred to the Department of Social Security. The provision of hospital, nursing home, handicapped children's, medical and domiciliary nursing care benefits together with the operation of the Pensioner Medical Service scheme are now administered by the Department of Social Security. Statistical tables and information related to the transferred services are shown in an earlier section dealing with the Department of Social Security.

Commonwealth National Health Payments

The following table shows the total Commonwealth payments in Tasmania for various services administered by the Department of Health:

Commonwealth Health Payments Administered by Commonwealth Department of Health (a)
(£'000)

Benefit or Service	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
Pharmaceutical Benefits—						
General	1,526	1,438	1,722	1,870	2,224	2,271
For Pensioners	802	850	1,030	1,125	1,231	1,457
Payments to Hospitals	538	602	706	739	919	796
Tuberculosis Campaign (b)	404	401	428	402	412	413
Free Milk Scheme	442	503	421	466	671	504
Miscellaneous	104	101	112	119	138	160
Total	3,816	3,895	4,419	4,721	5,595	5,601

(a) Payments from National Welfare Fund. Other services and benefits previously administered by the Department of Health were transferred to the Department of Social Security on 1 March 1973.

(b) Includes allowances to persons and reimbursements to State Government for approved expenditure.

Commonwealth Acoustic Laboratory

The main function of the Laboratory is the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children, and to those whose hearing loss was discovered after leaving school, but who are still under 21 years of age. It also provides and maintains hearing aids on behalf of the Repatriation and other Commonwealth departments and assists the Education Department in measuring deafness by providing and maintaining portable audiometers. In addition, the Laboratory supplies eligible pensioners with hearing aids on hire (for a single payment of \$10) and gives the necessary technical services for fitting, re-adjusting, maintaining, etc.

Commonwealth Health Laboratories

These laboratories, situated in Hobart and Launceston, provide free diagnostic services for medical practitioners and hospitals. Included in the services available are haematology, histopathology, serology, biochemistry, bacteriology and diagnostic cytology. The laboratories also undertake blood typing and cross-matching services for the Red Cross Blood Transfusion Centres.

Quarantine

Quarantine is administered by the Commonwealth and guards against the importation from overseas of human, animal and plant infection. The administration of safeguards against infection from interstate travel and trade is left to the States unless Commonwealth action is necessary for the protection of a State.

Under Commonwealth-State arrangements, the Commonwealth Government arranged to reimburse State Marine Boards the cost of installing incinerators at first ports of entry for overseas ships. The incinerators are used to dispose of overseas ships' garbage, reducing the possibility of introduction of diseases. Incinerators are installed at all Tasmanian first ports of call.

Pharmaceutical Benefits: Under this scheme, drugs and medicines for patients, who are required to pay a flat charge of \$1, can be prescribed by a medical practitioner or by a hospital. Not all drugs and medicines can be supplied under this scheme, but the Health Department's list of approved pharmaceutical preparations is extensive. Under this scheme basic rate pensioners receive their pharmaceutical requirements free of charge, while persons holding an appropriate entitlement certificate under the Subsidised Health Benefits Plan are only charged 50 cents.

Commonwealth-Assisted Health Organisations

National Heart Foundation of Australia

This was established to promote research in cardio-vascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases. The State Division deals especially with rehabilitation and education. The State Government recognised the importance of this work by creating a Cardio-vascular Services section within its own Department of Health Services in 1967.

HOSPITAL MORBIDITY

In the following tables particulars are given of all in-patients treated in Tasmanian public hospitals, who left hospital during 1972. Patients still in hospital at the end of 1972 will be included in figures for the year in which they leave hospital. Normal maternity patients are included, but babies born in hospital are included only if they receive treatment in excess of that routinely provided for the new-born.

Treatment Statistics

The following table analyses patients by age group and length of stay in hospital:

Patients Treated in Public Hospitals: By Age Group and Average Length of Stay, 1972

Age Group					Males			Females		
					Number	Per Cent of Total	Average Length of Stay (Days)	Number	Per Cent of Total	Average Length of Stay (Days)
Days—										
Under 28	..	..	..	..	238	1.13	11	170	0.58	12
28-365	..	..	..	..	963	4.57	8	721	2.46	8
Years—										
1-4	..	..	..	..	2,037	9.66	4	1,512	5.17	5
5-9	..	..	..	..	1,384	6.56	5	1,075	3.67	5
10-14	..	..	..	..	1,170	5.55	6	912	3.12	6
15-19	..	..	..	..	1,547	7.33	8	3,071	10.50	7
20-24	..	..	..	..	1,350	6.40	7	4,779	16.33	7
25-29	..	..	..	..	1,140	5.41	8	3,886	13.28	8
30-34	..	..	..	..	890	4.22	10	2,159	7.38	9
35-39	..	..	..	..	852	4.04	9	1,410	4.82	9
40-44	..	..	..	..	939	4.45	10	1,246	4.26	10
45-49	..	..	..	..	1,124	5.33	12	1,219	4.17	10
50-54	..	..	..	..	1,157	5.49	11	1,082	3.70	12
55-59	..	..	..	..	1,312	6.22	12	1,069	3.65	13
60-64	..	..	..	..	1,392	6.60	15	1,142	3.90	14
65-69	..	..	..	..	1,271	6.03	15	1,025	3.50	16
70-74	..	..	..	..	1,002	4.75	14	1,027	3.51	23
75 and Over	..	..	..	..	1,323	6.27	22	1,752	5.99	26
Total	..	..	..	..	21,091	100.00	10	29,257	100.00	10

Children aged up to nine years comprised almost 22 per cent of males and 12 per cent of females discharged. The high numbers in this age group were due principally to children receiving treatment for diseases of the respiratory system; this disease group accounted for 2,443 cases, or about one-third, of discharges of children under 10 years.

Injuries caused by accidents, poisoning and violence accounted for 2,057 cases or 42 per cent of male patients in the age group 15-34 years.

The next table analyses the patients, shown in the previous table, by condition treated and by length of stay:

Patients Treated in Public Hospitals: By Condition Treated and Average Length of Stay, 1972

Principal Condition Treated	Males			Females		
	Number of Patients	Total Days in Hospital	Average Stay (Days)	Number of Patients	Total Days in Hospital	Average Stay (Days)
Infective and Parasitic Diseases ..	815	11,713	14	744	6,918	9
Neoplasms	1,052	15,074	14	1,321	18,213	14
Endocrine, Nutritional and Metabolic Diseases	289	3,794	13	464	7,048	15
Mental Disorders	930	10,670	11	1,279	19,469	15
Diseases of the—						
Blood and Blood Forming Organs ..	143	1,322	9	193	2,145	11
Nervous System and Sense Organs ..	912	9,639	11	841	9,311	11
Circulatory System	2,480	37,424	15	2,110	36,415	17
Respiratory System	2,936	22,108	8	2,260	14,816	7
Digestive System	2,168	19,348	9	1,917	17,856	9
Genito-urinary System	931	9,602	10	2,344	16,773	7
Skin and Subcutaneous Tissue ..	390	4,040	10	376	4,402	12
Musculoskeletal System and Connective Tissue	1,017	13,212	13	834	11,959	14
Congenital Anomalies	371	3,786	10	269	2,198	8
Childbirth, Complications of Pregnancy and the Puerperium .. .. .	..	..	..	9,155	72,879	8
Certain Causes (a) of Perinatal Morbidity and Mortality	202	3,678	18	178	3,384	19
Symptoms and Ill-defined Conditions ..	1,594	9,988	6	1,570	15,964	10
Accidents, Poisoning and Violence ..	4,529	37,155	8	2,489	28,849	12
Other Special Admissions or Consultations	332	2,324	7	913	8,061	9
Total	21,091	214,877	10	29,257	296,660	10

(a) Includes toxæmia of pregnancy, conditions of placenta, birth injury, etc.

Comparable treatment statistics (in total only) for 1971 were:

- (i) Number of in-patients treated in public hospitals—males, 19,466 and females, 27,562.
- (ii) Total days in hospital—males, 197,576 and females, 268,264.
- (iii) Average stay in hospital—males, 10 days and females, 10 days.

Examination of the above table reveals that the seeming imbalance between total male and total female patients is largely accounted for by one classification: 'childbirth, complications of pregnancy and the puerperium'. If data under this classification were eliminated, then male patients would be nearly equal to female patients; the most significant classification affecting males is 'accidents, poisoning and violence' where males outnumbered females nearly two to one. One underlying cause is the greater exposure of males to industrial and road traffic accidents.

Chapter 16

LAW, ORDER AND PUBLIC SAFETY

LAW IN TASMANIA

Origin and Evolution of Tasmanian Law

Original Charters

By letters patent and Royal instructions issued by King George III in 1787, Captain Arthur Phillip was authorised and empowered to constitute and appoint justices of the peace, coroners, constables, and other necessary officers and ministers for the better administration of justice and for executing the law in the colony of New South Wales (which then included what is now the State of Tasmania). A warrant for a Charter was issued to establish courts of civil and criminal jurisdiction. It provided that 'Our present and all Our future governors and lieutenant-governors and Our judge advocate for the time being shall be justices of the peace within the said place or settlement and that all and every such justice and justices of the peace shall have the same power to keep the peace, arrest, take bail, bind to good behaviour, suppress and punish riots, and do all other matters and things with respect to the inhabitants residing or being in the place or settlement aforesaid as, justices of the peace have within that part of the Kingdom of Great Britain called England within their respective jurisdictions'.

By a subsequent Charter in 1814 the Deputy Judge Advocate was added as a justice of the peace. Meanwhile, within a year of the occupation and settlement of Van Diemen's Land, warrants had been issued in 1804 appointing a justice of the peace for Van Diemen's Land and another justice of the peace at Port Dalrymple.

Supreme Court of Van Diemen's Land

In 1823 the Imperial Government passed, as a temporary measure, an Act empowering King George IV to institute a Court of Judicature to be styled the Supreme Court of Van Diemen's Land. It began its activities in May 1824, with Sir John Lewes Pedder as Chief Justice. The Court superseded the Lieutenant Governor's Court, of Civil jurisdiction only, which had been set up in 1815 under a Deputy Judge Advocate. In 1828 the Imperial Parliament passed the *Australian Courts Act* (usually known as the Huskisson Act). It empowered His Majesty, as a permanent measure, to establish the Supreme Court of Van Diemen's Land as a court of record having cognizance of all pleas, civil, criminal or mixed, and jurisdiction in all cases as fully as His Majesty's Courts at Westminster. The Court was constituted a Court of Oyer and Terminer and Gaol Delivery and was also granted equitable, admiralty and ecclesiastical jurisdiction.

Courts of General Sessions have a similar history in some respects as their creation by the Colonial Legislature was authorised by the Huskisson Act and they too are now regulated by the *Local Courts Act* 1896.

Other Imperial Statutes that need to be mentioned in connection with the origin and evolution of Tasmanian law are the *Australian Constitutions Act* 1850, which empowered the Colonial Legislature to make provisions for the better administration of justice and for defining the constitution of the Courts of Law and Equity and of juries within the Colony; and also the *Colonial Laws Validity Act* 1865 which recognised that a Colonial Legislature at all times had full power within its jurisdiction to establish Courts of Judicature, and to abolish and reconstitute them, to alter their constitution, and to make provision for the administration of justice in them.

The Huskisson Act also empowered the Colonial Legislature to constitute Courts of Quarter Sessions with power and authority to try, in a summary way, all crimes, misdemeanours and other offences or misconduct not punishable by death. The Legislature of Van Diemen's Land accordingly instituted Courts of Quarter Sessions, which were also given jurisdiction to hear appeals from justices of the peace. In 1857 the Colonial Parliament passed a further Act providing for the appointment of Recorders to hold Courts of General Sessions as Courts of Criminal Jurisdiction. Two years earlier it had passed the *Magistrates Summary Procedure Act* and the *Magistrates Criminal Procedure Act*, which defined the duties of Justices of the Peace concerning summary convictions and orders and persons charged with criminal offences. These latter two Acts were subsequently superseded by the *Justices Procedure Act* 1919 and finally by the *Justices Act* 1959. Courts of Quarter Sessions have long ceased to exist in Tasmania.

All persons convicted of offences before the Court were to be liable to suffer the same pains, penalties and forfeitures as persons similarly convicted in England. Offences were to be prosecuted by information in the name of the Attorney-General or other officers duly appointed by the Governor. By leave of the Court, however, a private person could bring a criminal information against another person.

The Huskisson Act also provided that all laws and statutes in force within the realm of England at the time of the passing of the Act should be applied in the administration of justice in the Courts of Van Diemen's Land so far as the same could be applied within the Colony. The Governor was given the power to resolve by ordinance such doubts as might arise as to the applicability of English law and to limit or modify such law. Until any such ordinance might be made, questions of doubt were to be settled by the Supreme Court.

Pursuant to the Huskisson Act, the Charter of Justice was granted by King William IV in 1831. By this Charter, the Supreme Court of Van Diemen's Land was created and constituted a Court of Record consisting of the Chief Justice and the Puisne Judge. The Huskisson Act had given the Judges power to make rules and orders regarding the practice and procedure in proceedings before the Court but, in 1854, the Legislature of Van Diemen's Land passed the *Common Law Procedure Act* which regulated all such matters and this Act was replaced many years later by the present statute, the *Supreme Court Civil Procedure Act* 1932.

Origin of Other Courts

The Huskisson Act empowered the legislature of Van Diemen's Land by laws or ordinances to institute Courts of Requests with power and authority to hear and determine, in a summary way, claims in debt or damages not exceeding \$20, to be held before a Commissioner to be appointed by His Majesty. In the exercise of this power the Colonial Legislature in 1829 passed an Act 'to institute Courts of Requests' and since that date a number of statutes dealing with the subject have been passed. Courts of Requests are now regulated by the *Local Courts Act* 1896.

Juries

Tasmanian legislation regulating juries seems to have been first passed in 1830 although, for many years before that date, the introduction of the British system of trial by jury in civil and criminal cases had been persistently urged in the colony. The *Hobart Town Gazette* shows that juries had been employed in the colony for the trial of criminal cases from the establishment of the Supreme Court in 1824. Juries remain as the tribunal for trying indictable criminal cases and there is a limited right to a jury in civil actions, although in 1935 they were abolished for the purpose of trying motor accident cases.

Although the Tasmanian jury system was based on the English system it has, since 1934, embodied the principle of allowing *majority* decisions in certain circumstances instead of requiring the *unanimous* decisions once characteristic of jury usage in England and most other countries.

Civil cases have a seven-member jury and, if after three hours deliberation a seven-nil decision cannot be reached, a five-two decision is accepted. If the minimum five-two decision cannot be reached after four hours, the jury may be discharged.

In criminal cases, similar principles apply except that a 10-2 decision is accepted in lieu of 12-nil after stipulated periods of deliberation. In the case of murder, 12-nil is necessary to convict, but 10-2 can bring in a verdict of not guilty, or not guilty of murder but guilty of a lesser crime.

Revision of the Criminal Code

The *Criminal Code Act 1924* codified and brought together the criminal law of Tasmania. The Act embodied the State's criminal law in the form of a code which was made a schedule to the 1924 legislation.

As a result of a review of the State's criminal law the *Criminal Code Act 1973* was passed by Parliament. This statute embodied many important amendments to the Criminal Code; most of the changes stemmed from recommendations made by the Law Reform Committee of Tasmania. Among the more important changes were:

- (i) The distinction between burglary and housebreaking. Prior to the 1973 Act the Criminal Code had perpetuated an archaic distinction between burglary which was committed at night and housebreaking which was committed by day.
- (ii) The more serious offence of aggravated burglary (i.e. where a person uses or carries a firearm or offensive weapon or uses force in the commission of a burglary) was incorporated in the code.
- (iii) A new offence of kidnapping was included.
- (iv) A section covering bomb threats was written into the legislation.
- (v) The infanticide provisions were extended to cover mothers of children up to 12 months of age.

As well as the above amendments to the Criminal Code many other alterations were also embodied in the 1973 legislation.

The Present Law Court System

Courts of Petty Sessions

For particular municipalities in the State, there is a Court of Petty Sessions. The Court is constituted by a stipendiary magistrate (who must be a legal practitioner or barrister for not less than five years) or by two or more lay justices. In major centres of population, a Court sits regularly and, in smaller centres, a Court sits less frequently or is convened as occasion requires.

A Court of Petty Sessions has jurisdiction over all summary offences and also over certain indictable offences at the option of the defendant. Under the *Justices Act 1959*, a defendant may choose summary trial in the Court of Petty Sessions when charged with the following crimes: (i) Escape or rescue; facilitating escape of a prisoner or harbouring an offender; assisting escape of a criminal lunatic; rescuing goods legally seized; making a false declaration (or statement). (ii) Stealing; killing an animal with intent to steal; unlawfully branding an animal; obtaining goods by a false pretence; cheating; fraud in respect of payment for work; receiving stolen property. (In all these cases the value of the property concerned must exceed \$20 but not \$400. If the value does not exceed \$20 the defendant will be tried summarily. If it exceeds \$400 he will be committed for trial in the Supreme Court.) (iii) Breaking a building other than a dwelling-house. (It is necessary for the defendant to be committed to the Supreme Court for trial where it is alleged that in the commission of the offence, property to the value of more than \$400 has been stolen; violence has been used or offered to any person in or about the building; the person had in his possession a gun, pistol, dagger, cosh, or other offensive weapon; explosives were used; or the defendant intended to commit a crime other than stealing.) (iv) Forgery; uttering. (The complaint must be for an offence in respect of a cheque for not more than \$400.)

The following table shows the number of cases tried in the lower courts over a five-year period. (Minor traffic offences settled without court appearance are excluded.)

Cases Tried in Lower Courts

Offence	1968	1969	1970	1971	1972
Offences Against—The Person Males	786	891	953	1,021	1,181
.. .. Females	14	32	34	36	43
Property Males	3,937	3,987	4,095	5,692	6,238
.. .. Females	441	335	397	469	538
The Currency Males	151	179	340	229	165
.. .. Females	72	21	31	79	68
Good Order Males	1,819	2,082	1,962	2,319	2,638
.. .. Females	100	107	70	148	167
Traffic Regulations Males	20,450	18,717	19,935	20,833	24,097
.. .. Females	1,264	1,130	1,097	1,269	1,613
All Other Offences (a) Males	8,906	8,551	7,185	9,241	10,905
.. .. Females	734	411	520	878	1,010
Total Offences Males	36,049	34,407	34,470	39,335	45,224
.. .. Females	2,625	2,036	2,149	2,879	3,439

(a) Includes offences mainly against liquor, education, neglected children, revenue, gambling suppression laws, desertion of wives and children, perjury and subornation and conspiracy.

The following table shows cases tried and their results (minor traffic offences settled without court appearance are excluded):

Lower Courts, 1972

Lower Courts, 1912						
Offence	Cases Tried	Results of Trials				
		Convictions	Committed to Higher Courts	Adjourned Sine Die	Dismissed or Withdrawn (a)	Remanded
MALES						
Offences Against—The Person	1,181	617	218	153	172	21
Property	6,238	4,602	629	457	419	131
The Currency	165	131	11	12	1	10
Good Order	2,638	1,995	26	394	204	19
Traffic Regulations..	24,097	17,332	77	2,844	3,781	63
All Other Offences (b)	10,905	8,428	374	912	1,167	24
Total	45,224	33,105	1,335	4,772	5,744	268
FEMALES						
Offences Against—The Person	43	22	8	6	6	1
Property	538	372	10	75	78	3
The Currency	68	67	..	..	1	..
Good Order	167	124	..	28	14	1
Traffic Regulations..	1,613	1,039	19	136	416	3
All Other Offences (b)	1,010	775	46	92	96	1
Total	3,439	2,399	83	337	611	9
PERSONS						
Total	48,663	35,504	1,418	5,109	6,355	277

(a) 'Dismissed' is equivalent to 'not guilty' in higher courts.

(b) Includes offences mainly related to liquor, education, neglected children, revenue, gambling, desertion of wives and children, perjury and subornation and conspiracy.

Courts of Request

These are constituted as courts with civil jurisdiction for particular municipalities in accordance with the authority given by the *Local Courts Act 1896*. Courts are held before a commissioner who is usually a stipendiary magistrate. The Attorney-General fixes the dates on which these courts sit.

Every Court has jurisdiction throughout the State but a plaintiff may lose costs if he brings his action in a Court other than the Court nearest to which the cause of action arose.

The jurisdiction of a Court of Requests, which is a court of record, covers all personal actions where the debt or damage claimed does not exceed the maximum amount fixed under the Act. Since 1 November 1966, the sum of \$1,500 has been fixed as the maximum jurisdiction for a Court of Requests in respect of a debt or liquidated sum, and \$1,000 in any other case.

The commissioner alone determines all questions of fact as well as of law and his decision is the judgment of the Court, unless a jury is required. In any action either party may require a jury as of right and there is power for the commissioner to order that an action be tried by a jury, even though neither party has required it.

Law and equity are administered concurrently in the Court and the general principles of practice in the Supreme Court are adopted and applied in cases not expressly provided for in the Act or Rules.

Courts of General Sessions

A Court of General Sessions with civil jurisdiction is constituted under the *Local Courts Act 1896* for particular municipalities of the State. The cities are excluded, civil actions there being dealt with by Courts of Requests. A Court of General Sessions is constituted by a chairman (elected by the justices for the municipality) and at least one other justice. All questions are decided by a majority of the justices present and, if they are equally divided in opinion, the chairman has both a deliberative and a casting vote. If there is business requiring its attention, the Court sits at times fixed by the Attorney-General.

A Court of General Sessions has jurisdiction to deal with civil proceedings of a minor nature and the limit of the Court's jurisdiction has been fixed at the sum of \$100.

The Supreme Court of Tasmania

The Supreme Court of Tasmania is constituted by the Chief Justice and four Puisne Judges. Regular sittings of the Court are held at Hobart, Launceston and Burnie, although the Court is empowered to sit and act at any time and at any place for the exercise of any part of the jurisdiction and business of the Court.

The Court has jurisdiction over all causes, both civil and criminal, except those reserved for the High Court of Australia under the Commonwealth Constitution. It also exercises Federal jurisdiction in matters such as matrimonial causes, bankruptcy, etc. Its civil jurisdiction extends to all causes of action, whatever the amount involved may be, and its criminal jurisdiction includes the trial of all indictable offences. In civil cases, the Court has power to call in the aid of one or more assessors specially qualified to assist in the trial of the actions, but it is not bound by the opinion or advice of any such assessor.

There is an appeal to the Supreme Court of Tasmania from all inferior courts and from many statutory tribunals.

Law and equity are administered concurrently in the Court which is enjoined to grant, either absolutely or on such terms and conditions as seem just, all such remedies to which any of the parties may be entitled so that, as far as possible, all matters in controversy between the parties may be completely and finally determined, and a multiplicity of legal proceedings avoided. The Judges, on the recommendation of the Rules Committee, are empowered to make rules regulating the practice and procedure of all proceedings in the Court.

The jurisdiction of the Court is usually exercised by a Judge of the Court and from his decision there is an appeal to the Full Court of the Supreme Court of Tasmania. A Full Court consists of two or more Judges of the Court. The Full Court is also a Court of Criminal Appeal under the Criminal Code. The latter is a Court to which appeals may be brought by the Crown or by an accused person where an indictable offence is involved. In some cases, there is an appeal as of right but, in other cases, special leave is required.

The following table shows the number of cases tried in the higher courts, and the number of convictions:

Supreme Court Actions, 1972

Offences	Cases Tried		Convictions	
	Males	Females	Males	Females
Offences Against the Person—				
Murder	3	..	1	..
Attempted Murder	2	1	2	1
Manslaughter—Other than while Driving	1	..	1	..
While Driving	6	..	5	..
Culpable Driving, incl. Causing Death by Dangerous Driving (Other than Manslaughter)	16	..	11	..
Rape	7	..	4	..
Other Unlawful Carnal Knowledge	22	..	22	..
Incest	4	1	4	1
Other Offences against Females	7	..	7	..
Indecent Practices between Males	4	..	4	..
Unnatural Carnal Knowledge	1	..	1	..
Robbery	12	..	12	..
Malicious Wounding	10	1	9	1
Aggravated Assault	6	2	6	2
Common Assault	7	..	6	..
Other Offences against the Person	2	3	2	3
Offences Against Property—				
Burglary; Break and Enter; Break, Enter and Steal ..	124	4	118	4
Receiving, incl. Possession of Stolen Goods	6	..	4	..
Fraud and False Pretences	13	..	13	..
Arson, n.e.i.	14	1	14	1
Stealing	39	1	37	..
Other Offences Against Property	18	1	18	1
Forgery and Offences Against the Currency	5	..	5	..
All Other Offences	10	..	4	..
Total (a)	339	15	310	14

(a) There are fewer Supreme Court Cases tried than the number committed from the lower courts would lead one to expect. This is because: (i) *complaints* often embrace several *offences* in the lower courts; (ii) some cases are not proceeded with. Higher court cases often proceed under different offences' titles from those under which the lower court committals were made.

The following table shows the number of convictions in the higher courts over a five-year period:

Supreme Court Cases: Convictions

Offences	1968	1969	1970	1971	1972
Offences Against—The Person	76	92	108	90	105
Property	150	177	212	290	210
Forgery & Offences Against the Currency	11	11	8	6	5
All Other Offences	6	12	9	17	4
Total	243	292	337	403	324

The High Court of Australia

This Court was created by the Commonwealth Constitution and it has both original and appellate jurisdiction. It is constituted by the Chief Justice of Australia and six other Justices.

There is an appeal as of right to the High Court from the Supreme Court of the State in any civil matter where the sum involved amounts to at least \$3,000 or where the decision under appeal affects the status of any person under the laws relating to aliens, marriage, divorce, bankruptcy or insolvency. In other cases (including criminal cases) there is an appeal to the High Court if leave or special leave is granted.

Sittings of the High Court of Australia are held in each capital city and one sitting is held in Hobart each year if the volume of business warrants it. Otherwise, Tasmanian cases are usually heard either in Melbourne or Sydney.

Privy Council

An appeal lies direct from the Supreme Court to the Privy Council in a civil action where the amount involved is not less than \$2,000 and in other cases an appeal may be heard by special leave. Special leave may also be obtained to appeal to the Privy Council from a decision of the High Court of Australia. However, as from 1 September 1968 the High Court of Australia became the final court of appeal in all cases involving Commonwealth law (i.e. in litigation involving laws of the Commonwealth, which was instituted after 31 August 1968, there is no right of appeal to the Privy Council).

Tribunals

There are many tribunals which are not true courts and the powers and functions of these depend upon the detailed provisions of the particular statute under which they operate. Certain specialised courts have been created by statute. For example, there is the Wardens' Court constituted under the *Mining Act* 1929 and the Licensing Court constituted under the *Licensing Act* 1932.

Coroners' Courts

Coroners are appointed by the Governor and have jurisdiction throughout the State. Under the *Coroners Act* 1957, a coroner may hold an inquest: (i) Concerning the manner of death of any person who has died a violent or unnatural death, who died suddenly without the cause being known, or who died in a prison, or mental institution; at the direction of the Attorney-General, he may also be required to hold an inquest concerning any death. (ii) Concerning the cause of any fire if the Attorney-General has directed, or has approved a request by the owner or insurer of the property; or at the request of the Fire Brigades Commission or the Rural Fires Board.

The coroner usually acts alone in holding an inquest, but either the Attorney-General or the relatives of the deceased may request that a four or six-man jury be empanelled. After considering a post-mortem report the coroner may dispense with an inquest, unless the circumstances of death make an inquest mandatory under the Act.

The duty of the court is to determine who the deceased was, and the circumstances by which he came to his death. Medical practitioners and other persons may be summoned to give evidence. In the case of the death of an infant in a nursing home, the coroner may also inquire generally into the conditions and running of the institution. On the evidence submitted at the inquest, the coroner can order a person to be committed to the Supreme Court and can grant bail. In the case of murder, a coroner can issue a warrant for apprehension.

Children's Courts

A 'child' in this jurisdiction is one under the age of 17 years. The Court, before finally disposing of the case, must receive a report from a child welfare officer (the representative of the Director of Social Welfare), unless the Court considers the offence trivial or the Director decides not to provide one. A child's parent has the right to be heard and to examine and cross-examine witnesses, or to be represented by counsel; also a parent can be compelled to attend the hearing if this imposes no unreasonable inconvenience.

In summary proceedings, the Court is compelled not to enter a conviction against a child unless it imposes a sentence of imprisonment or there are special circumstances which indicate that a conviction should be recorded.

Children under 16 years cannot be sentenced to imprisonment and children of 16 years cannot be sentenced for more than two years, in aggregate. Minimum penalties imposed by statute do not apply to children; for those under 14 years the maximum fine is \$20, and for those over 14 years, \$50. The Court may impose a supervision order to bring the child under the guidance of a child welfare officer or, if over 15 years, of a probation officer. Alternatively, the Court may declare the child a ward of the State, placing him under the control of the Director of Social Welfare until his eighteenth birthday, unless released sooner; it may also direct that a ward be committed to an institution. In cases where further investigation appears necessary the court may issue a remand for an observation order before it makes a final decision. Remands for observation orders are for short periods and usually provide for intensive supervision. (In the case of delinquency the maximum period for such an order is three months.)

Neglected or uncontrolled children are in the Court's jurisdiction; it may make a supervision order; an interim order (similar to a remand for observation order, the effect being to defer the transfer of guardianship until it is apparent that there is no suitable alternative); or impose wardship or bind the parents over to provide proper care and control, and comply with other directions. If parents have contributed to a child's offence, by failing to control the child, they may also be charged, convicted, fined, ordered to pay for damage and obliged to enter into a recognizance for the good behaviour of the child for up to 12 months.

Unlike a Children's Court, the Supreme Court is in no way inhibited in imposing a penalty on a child. In addition to its ordinary sentencing powers, it may make supervision or wardship orders, and commit a child to an institution. If a child is sentenced to imprisonment, the responsible Minister may direct that the sentence be served in a place other than a gaol.

Statistics of offences for which children were reported appear in Chapter 15 under 'Department of Social Welfare'.

Bankruptcy

On 4 March 1968, the Federal *Bankruptcy Act* 1966 (repealing the Act of 1924-1965) came into operation. The Federal Court of Bankruptcy generally exercises jurisdiction in N.S.W., A.C.T. and Victoria while the Supreme Court of Tasmania exercises Federal jurisdiction in Tasmania.

Under the 1968 legislation, a person unable to meet his debts may voluntarily present to the Registrar in Bankruptcy a petition against himself and become a bankrupt under section 55; if the Registrar does not accept the petition and refers it to the Court, he may be directed to accept it. A creditor may apply to the court for compulsory sequestration of a debtor's estate where the debt is not less than \$500. Where a debtor becomes bankrupt:

- (i) his property, not being after-acquired property, vests immediately in The Official Receiver in Bankruptcy; and
- (ii) his after-acquired property vests in The Official Receiver in Bankruptcy, or if a private trustee has subsequently been appointed, then in that trustee.

A debtor may avoid sequestration, in some circumstances, by authorising a registered trustee to call a meeting of his creditors and take over control of his property; or by authorising a solicitor to call a meeting of his creditors (Part X). The debtor's property is controlled by the trustee until the creditors resolve otherwise, or the Court orders otherwise, or a deed of assignment or arrangement is executed, or a composition is accepted, or the debtor dies or becomes bankrupt.

A person becoming bankrupt under the Act may be automatically discharged from bankruptcy after the expiration of five years (section 149) unless discharged earlier by the Court. Undischarged bankrupts at 4 March 1968 were discharged three years later (4 March 1971) or five years from the date of the sequestration order, whichever was the later (unless discharged earlier by the Court). The Registrar, trustee or a creditor may lodge an objection to this type of discharge, and if it is not withdrawn the debtor must apply to the Court under section 150 if he desires to be discharged.

The following table shows the number of bankruptcies and private arrangements together with the assets and liabilities of debtors:

Tasmania: Bankruptcy Proceedings

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Bankruptcies and Orders for Administration of Deceased Debtors' Estates—					
Number	100	121	123	156	151
Liabilities \$'000	602	589	839	1,090	470
Assets \$'000	247	359	227	438	189
Deeds of Assignment, Arrangement, Compositions and Schemes—					
Number	8	13	17	12	12
Liabilities \$'000	553	269	198	47	416
Assets \$'000	287	209	247	42	574
Total—					
Number	108	134	140	168	163
Liabilities \$'000	1,155	858	1,037	1,137	886
Assets \$'000	534	568	474	480	763

The Licensing Court

The State Licensing Court was set up under the *Licensing Act* 1932 and consists of a stipendiary magistrate (who is the chairman) and two Government nominees. The Court is empowered to hear and determine: (i) applications for the granting of hotel and other liquor licences; (ii) applications for the registration or renewal of registration of clubs; and (iii) objections to (i) and (ii).

Since 1952 the *Licensing Act* has empowered the Court to determine the minimum standards of service, management, accommodation, structure and equipment which should apply to hotels and licensed restaurants, and also the qualifications required by persons holding or applying for licences.

The following table shows the total hotel bedroom accommodation available to the public during recent years:

Standard of Accommodation: Hotels

At 30 June	Total Number of Bedrooms	Number of Bedrooms Furnished with—	
		Private Bath, Showers, Toilets and Hand-basins	Handbasins with Hot and Cold Running Water
1968	3,552	955	2,142
1969	3,525	1,073	2,020
1970	3,564	1,117	2,020
1971	3,566	1,228	1,950
1972	3,640	1,333	1,924
1973	3,928	1,751	1,797

Every hotel in Tasmania is visited annually by a member of the Court and the Court's inspectors and the public health inspector make a thorough examination of each hotel prior to the annual sittings at which renewals of licences are considered. Reports are furnished for the information of the Court and the Tourist Department. An officer of the Fire Brigades Commission also carries out an annual inspection to ensure that each hotel complies with the requirements of the Commission.

The following table shows the licences and club registrations operative:

Licensed Hotels, Restaurants, Clubs and Wholesale Licences

At 30 June						Hotels (a)	Restaurants (b)	Registered Clubs	Wholesale Licences	Total
1968	..	..	..	..	..	267	..	138	29	434
1969	..	..	..	..	..	263	11	145	29	448
1970	..	..	..	..	..	264	16	146	30	456
1971	..	..	..	..	..	269	23	153	29	474
1972	..	..	..	..	..	269	22	156	29	476
1973	..	..	..	..	..	269	27	162	31	489

(a) Includes a small number of premises not providing accommodation and known as 'taverns'.

(b) Includes motels which have a licence for dining rooms only.

The Ogilvie ministry introduced 10 a.m. to 10 p.m. bar trading hours before World War II and, in the post-war period, Tasmania's 10 p.m. closing contrasted with 6 p.m. closing in S.A., Victoria and N.S.W. However, these States progressively liberalised their drinking laws, and by 1967 all had adopted late closing.

In 1967 the Tasmanian *Licensing Act* 1932 was amended to allow 11.30 p.m. closing on Friday and Saturday nights for those hotels which desire to observe these hours and which obtain the necessary permits; 10 p.m. closing is now the rule for other nights (excluding Sunday) with provision nevertheless to obtain extension permits for special functions. The permitted age for drinking on licensed premises has been lowered from 20 to 18 years. Restaurants complying with defined conditions can now obtain licences to sell liquor (previously diners could take their own liquor to certain restaurants, but not buy it on the premises); licensed restaurants can open till 11.30 p.m. six nights a week. Dining accommodation, kitchen specifications, etc. for licensed restaurants are strictly supervised.

The Wrest Point Casino Licence (granted by the Treasurer) permits certain categories of gaming until 3 a.m. seven days per week. As long as entertainment and dining facilities are provided the sale of liquor is allowed on the same basis under an *entertainment permit*. The entertainment permits are, in fact, available to any hotel or licensed restaurant which is able to provide the required entertainment.

Other recently introduced new permits are: (i) *occasional permits*—for clubs or societies which are not registered; and (ii) *motel permits* which allow the extension of liquor services to lodgers' rooms if the motel has a restaurant licence.

PRISONS

General

The establishment, regulation and conduct of prisons and the custody of prisoners in Tasmania are provided for under the *Prison Act* 1868 and 1908. Provision is made for the appointment, by the Governor, of a Controller of Prisons who is responsible for the supervision of gaols, including the initiation and implementation of correctional programmes for prisoners and staff training schemes.

Two justices of the peace are appointed for each institution each year to act as Visiting Justices. They visit the prison at least once per month to examine the treatment, behaviour and condition of prisoners, and the condition of the prison. They hear complaints with regard to offences committed in the gaol, and have power to punish offenders either by solitary confinement or by extending the term of imprisonment.

The main prison in Tasmania is at Risdon near Hobart, which has, as an outstation, the Farm Gaol at Hayes in the Derwent Valley. The prison at Launceston is limited in function, receiving only persons on remand or sentenced for periods not exceeding seven days. The Launceston Prison also functions as a holding centre for prisoners from the northern districts of the State prior to their transfer to Risdon.

The following table shows Prisons Department expenditure from Consolidated Revenue:

Prisons Department: Expenditure From Consolidated Revenue
(*\$'000*)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Total Expenditure	781	816	858	986	1,096
Net Receipts (a)	(b) 42	4	42	25	33
Net Expenditure	739	812	816	961	1,063

(a) From prison industry and gaol farm activities described later in the text.

(b) Includes \$29,000 paid to the Prisons Department from a special State fire insurance trust fund towards the cost of fire damage.

Prisoners Received and Discharged

In the following table giving details of prisoners received into and discharged from Tasmanian prisons, no distinction is made between those on remand and those convicted and sentenced to imprisonment. (Figures for H.M. Prison, Risdon, include those held in custody at the Hayes Farm Gaol.)

Prisoners Received and Discharged (a), 1971-72

Particulars	Risdon Gaol		Launceston Gaol		Total	
	Males	Females	Males	Females	Males	Females
In Custody at 30/6/1971	404	6	5	..	409	6
1971-72—						
Received	627	40	615	26	1,242	66
Transferred (b)	+440	+12	-440	-12	..	..
Discharged	1,090	52	174	14	1,264	66
In Custody at 30/6/72 ..	381	6	6	..	387	6

(a) Includes persons on remand.

(b) Transfers from Launceston to Risdon.

Age of Prisoners

Young offenders account for a high proportion of receivals. The proportion of convicted male prisoners under 25 years was: 58 per cent in 1967-68; 59 per cent in 1968-69; 61 per cent in 1969-70; 62 per cent in 1970-71; and 60 per cent in 1971-72. The following table shows the age of convicted prisoners admitted to gaol.

Ages of Convicted Prisoners Admitted to Risdon Gaol, 1971-72

Sex	Age Group (in Years)								Total
	Under 18	18 and 19	20-24	25-29	30-39	40-49	50-59	60 and Over	
Males	97	137	220	75	82	73	32	8	724
Females	6	6	4	4	2	5	5	1	33
Total	103	143	224	79	84	78	37	9	757

Prisoners' Offences

Approximately 42 per cent of the offences for which people were gaolled during 1971-72 involved 'stealing' and 'breaking and entering'. The following table shows the offences for which convicted prisoners were received:

Offences for Which Convicted Prisoners Were Admitted to Risdon Gaol During 1971-72

Offence for Which Convicted	Males	Females	Persons	
			Number	Proportion of Total
Stealing	551	33	584	per cent 29.2
Breaking and Entering	253	11	264	13.2
Driving Offences—				
Driving Whilst Licence Suspended ..	83	..	83	4.1
Dangerous Driving	20	..	20	1.0
Drunken Driving	21	..	21	1.0
Other	35	..	35	1.7
False Pretences	151	1	152	7.6
Unlawful Use of Motor Vehicle	132	2	134	6.7
Assault	90	3	93	4.6
Failure to Pay Fines	65	..	65	3.2
Housebreaking	59	4	63	3.1
Breach of Bond	41	..	41	2.0
Indecent Assault	32	..	32	1.6
Damage to Property	32	..	32	1.6
Vagrancy	21	8	29	1.4
Drunk and Incapable	23	3	26	1.3
Receiving	23	..	23	1.1
Drunk and Disorderly	17	6	23	1.1
Robbery with Violence	20	..	20	1.0
Escape from Lawful Custody	20	..	20	1.0
Unlawful Possession	18	1	19	0.9
Default in Payment of Fines	18	..	18	0.9
Resist Arrest	17	..	17	0.8
Other	178	11	189	9.4
Total (a)	1,920	83	2,003	100.0

(a) The number of offences exceeds the number of prisoners received since some prisoners were convicted of multiple offences.

The next table classifies convicted prisoners according to the number of their previous convictions:

Convicted Prisoners Admitted to Risdon Gaol During 1971-72, According to Number of Previous Convictions (a)

Prisoners	Number of Previous Convictions				Total
	Nil	One	Two	Three or More	
Number Received	111	55	44	547	757
Percentage of Total	14.7	7.3	5.8	72.3	100.0

(a) Previous convictions may not necessarily have involved imprisonment.

Parole and Remission of Sentences

Good conduct remissions of up to one-third of sentence for prisoners sentenced to over three months may be granted by the Governor of the State on the Controller's recommendation. Prisoners may also be paroled on licence for the balance of their sentences.

The Indeterminate Sentences Board is appointed by the Governor of the State to review cases of prisoners serving indeterminate sentences (i.e. those where no fixed sentence is specified and the duration is dependent on the prisoner's conduct, etc.). Such prisoners may be released on a two-year licence and are subject to any conditions the Board may recommend, e.g. the supervision of a probation officer.

The following summary table shows the number of prisoners under the supervision of the Indeterminate Sentences Board:

Prisoners Serving Indeterminate Sentences at Risdon Gaol

Prisoners	1967-68	1968-69	1969-70	1970-71	1971-72
Received During Year	15	9	16	12	17
Discharged During Year	19	11	7	20	14
In Custody at 30 June	8	6	15	7	10

Capital Punishment

The death sentence has not been carried out in Tasmania since 1946, but judges pronounced the sentence from time to time until 1968; in October 1968, the Attorney-General introduced a bill to abolish capital punishment and this was passed by the Parliament in December of that year.

Risdon Gaol

The Risdon Gaol, with provision for 333 prisoners, was opened in November 1960. Male prisoners were then transferred from the old Hobart Gaol and in June 1963, the Female Prison, the first entirely separate gaol for women to be built in the State, was opened on the Risdon site. The following table shows the daily average and highest number of prisoners at Risdon Gaol over a five-year period:

Number of Prisoners, Risdon Gaol (a)

Prisoners	1967-68	1968-69	1969-70	1970-71	1971-72
Maximum Number	352	362	405	414	406
Daily Average	323	333	359	386	373

(a) Includes Hayes Farm Gaol.

The Risdon Gaol incorporates workshops which serve as a basis for vocational and trade training in such subjects as woodworking, tailoring, sheet metal working, bootmaking, laundry and breadmaking. Educational services include instruction during working hours for illiterate and semi-literate prisoners; tuition, during evenings, in general academic subjects to Secondary Schools Certificate standard; correspondence courses in University, School Certificate, Higher School Certificate and various technical and commercial subjects; tuition in English for migrants; and training in art and allied subjects. A classification committee interviews all prisoners on admission and decides on each individual's training programme.

Groups meet regularly for wood carving, art, pottery, toy making, chess and dramatics. Feature and documentary films are screened monthly, and concert parties visit the prison regularly. A comprehensive sports programme is conducted, including athletics, gymnastics, and competitions in cricket, volley ball and basketball.

The State Library of Tasmania helps with the prison library and library officers advise the prisoners on book selection each weekend; 5,000 volumes are immediately available; prisoners may request other books. Over 650 books are borrowed from the library weekly.

Prison industries produce articles for government departments and institutions. The following table shows the receipts for prison industries over a five-year period. A laundry installed in 1963 contributes to receipts from sales and services but the amounts are not a true indication of value to the government, as laundry is processed at a nominal figure for hospitals and other government institutions.

Gaol Suspense Account (Prison Industries)
(£)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Receipts (a)	70,094	99,852	82,901	101,895	134,000
Paid to Consolidated Revenue .. .	4,998	1,203	28,328	9,309	28,415

(a) Maintenance, material and capital charges are met from receipts, the balance being paid to Consolidated Revenue.

Hayes Farm Gaol

The Farm Gaol at Hayes ('Kilderry') is an outstation of the Risdon Prison. It is used to prepare men for a normal way of life through operation of the honour system. Up to 90 prisoners who are regarded as being worthy of trust, regardless of their age, length of sentence or type of offence, are held there.

The following table shows the receipts from sale of farm produce and the amounts paid to Consolidated Revenue over a five-year period:

Gaol Farm Suspense Account
(£)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Receipts (a)	60,480	73,687	80,622	84,016	109,318
Paid to Consolidated Revenue .. .	8,033	2,564	13,267	15,825	4,734

(a) Maintenance, material and capital charges are met from receipts, the balance being paid to Consolidated Revenue.

The 1,400 acre property has been developed into a model farm with a great diversity of farming activities. These include 65 acres for vegetables; a registered stud of friesian cattle and herefords; about 2,000 sheep for wool and fat lambs; a registered herd of berkshire pigs; poultry; cropping of wheat, oats, lucerne and hay; breeding of children's ponies; hot house cultivation; and an experimental shrub and tree nursery, etc. An additional 310 acres of land was purchased near New Norfolk in May 1969. This property, about one mile north of the Hayes prison farm functions as an annexe to the Hayes property. During 1970-71 a sawmill was established on the property. The Royal Derwent Hospital farm of 734 acres, including the dairy herd and poultry section, was transferred to the Prisons Department during 1971. All prison requirements of milk and butter are met and the surplus is supplied to the Royal Derwent Hospital. Building construction activities and machinery maintenance workshops also provide employment, but this range of prison industries is more limited than at Risdon. Similar educational and recreational facilities are provided.

Adult Probation Service

The Service deals with the problems of resettlement and re-employment of discharged prisoners. There is a counselling and guidance service so that ex-prisoners may be placed in occupations suited to their talents.

The Hobart and District Civic Rehabilitation Council, the Prisoners Aid Society, the City Mission, the Society of St Vincent de Paul, chaplains of the various churches, and other voluntary aid organisations, give material and moral assistance to serving and discharged prisoners.

THE TASMANIAN POLICE FORCE

History

The development of an organised Police Force in Tasmania commenced when Governor Collins arrived, bringing with him a body of civilians known as the 'Night Watch' which had been formed at the settlement on Port Phillip Bay. On 5 July 1804, Collins instructed that at least two of the Night Watch were to be on duty at night because of the number of robberies being committed. Collins disbanded the Watch two years later, recognising that it was necessary to have police able to carry out their duty in a proper manner. At Port Dalrymple, now Launceston, which was then separately administered, Lieutenant-Governor Paterson on 19 November 1804, appointed Thomas Massey as Chief Constable, with three subordinate constables.

Because allowances, which consisted only of rations, clothing and spirits, were not sufficient for the proper support of the first policemen, they were forced to find other means of supplementing their incomes. This led to the force being mediocre at best. Free settlers were not inclined to join the force because of the poor remuneration; recruits were mostly convicts on 'ticket of leave'.

In 1828, Governor Arthur, who had commented that 'there was no Branch of the Public Service more deficient than the Police', divided the State into nine districts, each with a police magistrate who was responsible to a chief police magistrate in Hobart. Writing about the 1820s in Hobart Town, J. E. Calder in an 1879 newspaper article said '... drunkenness was 10 times more prevalent than now, and street robbery, burglary and even murder were not rare ...'

Arthur's organisation remained until soon after the State graduated to responsible government in 1856. In 1857, the *Hobart Town and Launceston Police Act* made the two towns responsible for their police forces. Some other municipalities took control of their own police following the passing of the *Rural Municipalities Act* 1858, and, where there was no municipal police force, the Government provided police from a Territorial Force.

The nucleus of the present force was not created until 1898 when the first Commissioner was appointed, all police forces were amalgamated and municipal control terminated.

The Present Force

Organisation: The Police Department is headed by the Commissioner who is responsible to the Minister for Police. There are three administrative districts, i.e. Southern, Northern and North-Western, each under the control of a superintendent. Overall control of the three districts is vested in a chief superintendent. (This position was created in 1972, and is the highest *uniform* rank in the police force.) The police force has three specialist branches, the Criminal Investigation Branch, the Training Branch and the Traffic Branch, each with a superintendent in charge.

Recruitment and Training: The Police Department operates two recruit training schemes. In 1971 the Department introduced a cadet training scheme from which recruits qualify as first-year constables at the age of nineteen. To qualify for the course applicants must be aged not less than 16 years, with Level II passes in School Certificate English and Mathematics. For applicants up to the age of 18 years, preference is given to those holding a Higher School Certificate. All other recruits undergo an intensive 14-week training course.

In recent years there has been a rapid increase in the number of policewomen. Policewomen receive the same training, pay and other allowances as male officers.

Officers must qualify by examination before promotion to each rank up to inspector. The Department has sponsored some officers' university courses and men are also sent to police colleges in Sydney and Melbourne.

Criminal Investigation: The Criminal Investigation Branch comprises approximately 130 police officers of whom about 100 are engaged in the active investigation of crime. The recently formed drug squad is part of this Branch. The Branch also controls the information bureau (see *Fingerprinting* and *Laboratory* below) and communications.

Traffic Duties: The Department enforces the traffic regulations for the Transport Commission. Traffic control occupies a large part of police time.

Search and Rescue: A search and rescue squad, based in Hobart, equipped for bush and sea search and rescue, cliff rescue, and resuscitation is ready to leave at short notice. The squad is supported by walking clubs and other people in various parts of the State.

Other Duties: Inspection of licensed premises, supervision of gaming, conducting special interviews and inquiries for government departments, and the service of notices and summonses are important police functions.

Communications: Radio is used extensively; since 1954 there has been a direct link-up with the mainland States. An intrastate system operates between Hobart, Launceston, Burnie, Queens-town, Oatlands and Deloraine. Mobile radio is installed in all police vehicles and boats. 'Walkie-talkie' units were issued to policemen on the beat in Hobart and Launceston in 1971. A teleprinter allows direct contact with Interpol, the international police agency, and other States.

Fingerprinting: This is an important aid to criminal investigation. Each year some 2,000 sets of prints are received, checked with the Central Fingerprint Bureau in Sydney and classified. Over 100,000 sets are kept on file.

Laboratory: A modern laboratory equipped with a comparison microscope and other investigation facilities is used by Information Bureau experts for ballistic examination, inspection of documents, file marks, etc. and other evidence of criminal activity. Extensive use is made of photography.

Police Academy: In 1971 work started on the Department's new training academy at Rokeby, about ten miles from Hobart. The academy, to cost an estimated \$3,500,000, is scheduled for completion in 1974. Planned to house 120 cadets, the project comprises an instruction block, a residential block and four houses to accommodate senior staff. Among facilities which will be provided at the academy are a shooting range, armoury, drill square, library, theatre and cafeteria.

Strength of Force

The following table shows the number of police and expenditure:

Police Force: Number and Cost

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
Police Officers (a) no.	696	721	749	796	879
Persons Per Police Officer (a) no.	545	534	518	490	446
Cost (Total Expenditure of Police Department) \$'000	3,541	3,680	4,055	4,869	6,220
Cost Per Head of Mean Population \$	9.38	9.62	10.49	12.51	15.85

(a) At 30 June.

EMERGENCY SERVICES

Civil Defence

Introduction

Following a series of discussions at Commonwealth and State level the Tasmanian Government, in 1962, decided, in common with other States, to establish a Civil Defence and Emergency Services Organisation for this State. The Government considered that in addition to its intended role in time of war the Organisation should be organised and trained to assist in combating natural emergency situations. A Director of Civil Defence and Emergency Services was appointed to plan the new organisation and exercise overall control of volunteer units.

Responsibilities

By agreement between Commonwealth and States the responsibility for developing the Civil Defence Organisation was undertaken by the three tiers of Government—Federal, State and local. At the Federal level the Commonwealth Directorate of Civil Defence implements its Government's policies, conducts the Australian Civil Defence School, provides training and operational equipment to the States and acts as the liaison media between States and the Commonwealth.

Ministerial responsibility for Civil Defence and Emergency Services in Tasmania is vested in the Chief Secretary. The Director of Civil Defence and Emergency Services is responsible to him for implementing Government policies and the administration and control of the organisation.

Local government authorities have the responsibility of sponsoring a volunteer unit for their municipality and appointing a local controller to raise, train and control it. Participation by councils is voluntary and as at 1 July, 1973, some 40 municipalities had joined the organisation.

The responsibility for co-ordinating disaster emergency measures is vested in the Commissioner of Police as the authority responsible for preservation of life and property. The State Disaster Plan stipulates that the Civil Defence and Emergency Services carry out all co-ordinating functions under his direction. During 1972-73 units of the organisation assisted Police and other authorities in emergency operations.

Administrative Structure

Civil Defence administration in Tasmania is organised on a four-level basis: (i) municipal divisions; (ii) regions; (iii) areas; and (iv) State. Each municipality constitutes a municipal division of which 40 are currently operational in varying degrees. The 'municipal divisions' are allocated on a geographical basis between nine 'regions' which in turn are attached to one of three 'areas'. At the apex of the structure is the State headquarters located at Hobart.

At present, regional commands are bypassed and a direct link exists between the 'area' and the 'municipal division'.

Each area is administered by a full-time area co-ordinating officer who assists volunteer municipal controllers in raising and training divisions.

Recruitment and Training

By July 1973, 1,253 males and 401 females had volunteered for service in the 40 municipal divisions. On enlistment all volunteers are insured against death or injury while engaged in training or participating in emergency operations.

Training is undertaken at State and Area Headquarters and at the municipal level, while instruction courses for controllers, staff officers, and heads of services are conducted at the Australian Civil Defence School at Mt Macedon, Victoria. During 1972-73, 97 members of the State Civil Defence attended courses in Victoria. Annual seminars for local controllers of municipal divisions are also conducted at alternative centres within the State.

Equipment and Finance

Protective clothing and operational equipment for the units of the various services up to the value of \$20,000 per annum are provided by the Commonwealth Directorate of Civil Defence. State appropriation for civil defence expenditure during 1972-73 was \$64,145.

Fire Prevention and Fire Fighting

Fire Brigades Commission of Tasmania

The Commission, established under the *Fire Brigades Act* 1945 (as amended) is composed of two representatives of the Minister (the Chief Secretary), three representatives of insurance companies, one representative of city and municipal councils and one representative appointed by the Rural Fires Board. All urban brigades are under the control of a Chief Officer. The system of financing the fire brigades is shown below:

Fire Brigades: Principal Sources of Revenue, 1971-72
(\$'000)

Contributions Received by Fire Brigades Commission	Receipts	Distribution Made by Fire Brigades Commission	Payments
From—		To—	
State Government	363	Fire Brigades Boards	1,614
City and Municipal Councils	363		
Insurance Companies	888		
Total	1,614	Total	1,614

The number of contributing local government authorities in 1971-72 was 32, although the number of fire brigade boards was only 23 (some boards take responsibility for areas lying in more than one municipality, e.g. the Hobart Board with sub-stations in Glenorchy, Clarence, Kingborough and Sorell). The present contribution formula requires 55 per cent from the insurance companies, and 22½ per cent each from the Government and local government authorities; the Commission prepares an annual estimate of expenditure so that the level of contributions may be fixed in advance. The loan debt of all fire brigade boards at 30 June 1972 was \$713,000.

At 30 June 1972, the 23 fire brigade boards maintained 40 stations (including sub-stations) and employed 227 permanent firemen (Hobart 133, Launceston 82, Burnie 6, Devonport 6); other firemen, numbering 418, were paid on a part-time basis. In addition, one Hobart sub-station, Fern Tree, situated in forested mountain country, had a volunteer strength of 40. Including the Fern Tree volunteers, the total firemen (officers and men) in the Brigades numbered 685.

Rural Fires Board

Following the fire disaster of February 1967, the Rural Fires Board was reorganised under the *Rural Fires Act* 1967 and became fully operative in July 1968.

The Act brought the separate urban and rural fire services and the State Civil Defence and Emergency Services together under the Chief Secretary. The Rural Fires Board operates under a chairman appointed by the Governor and consists of 16 members representing: Forestry Commission (two members); Police; Fire Brigades Commission; pulp and paper making industry management; sawmilling industry management; Hydro-Electric Commission; Fire and Accident Underwriters' Association; Tasmanian Farmers' Federation; Tasmanian Farmers', Stockowners' and Orchardists' Association; Australian Workers' Union; Timber Workers' Union; and Rural Fire Brigades.

Under the Act, the municipal councils, through fire permit officers approved by the Board, are made responsible for the control and issue of permits for fire used for clearing vegetation during restricted periods. Permit officers are not necessarily employees of the councils. Fire use is controlled during only two periods, that is, during *fire danger periods*, when permits are required, and on days of *acute fire danger* when no fires are permitted. These periods are introduced and removed as the seasonal conditions dictate in various parts of the State. The Act requires each municipal council to form a municipal fire committee for the purpose of promoting the formation of rural fire brigades and advising the Board and the council on matters of fire restriction, hazard reduction, the provision of funds for purchase of equipment to be used by rural fire brigades and any other fire control matters. For approved equipment purchases for use by rural fire brigades, the Government may contribute a subsidy equal to the sum provided by the municipal council. Areas with particular fire problems and sparse population may be declared as *special fire areas* and be the subject of separate schemes sponsored entirely from Government finance.

The Board has a paid staff of 19, headed by the State Fire Control Officer and includes five Regional Fire Officers. There were 299 rural fire brigades at June 1972. These brigades are composed entirely of registered volunteers, involving 6,883 people. The Board's budget in 1971-72 was \$442,500 comprising: \$220,000 for administrative and field operational expenditure; \$85,000 for fire fighting vehicles, radio communications and other equipment; \$97,000 for development of *special fire areas*; and \$40,000 for fire fighting equipment, hazard clearing and other work in Hobart special fire area. Half the administrative expenditure of the Board is met by insurance companies insuring rural properties, and half by the Government. Special fire area expenditure is borne by the Government, with remaining expenditure being shared proportionately between the Government and municipalities.

Urban Fire Brigades Inquiry

In January 1974 Tasmania's Chief Secretary announced a Government-commissioned inquiry into the State's urban fire brigade network. The objective of the inquiry is to examine the problems facing urban fire brigades and suggest improvements for the organisational, administrative and financial structures of the brigades. (Technical aspects of fire fighting are outside the scope of the inquiry.) Matters to be examined by the inquiry include:

- (i) The need for uniform municipal fire service rating throughout the State.
- (ii) Exchange of personnel and equipment between brigades.
- (iii) Education in fire prevention and procedures in public buildings e.g. hospitals.
- (iv) Deficiencies in the current system and the necessity for amending legislation.

Forestry Commission

The Commission is responsible for the protection of the State Forests (2.7m acres) and of other forested Crown land. Close liaison is maintained with the Rural Fires Board as two members of the 16-man Board are representatives from the Forestry Commission.

The following table gives details, for 10 years, of the areas burnt within fire perimeters, the number of fires fought and the cost of suppression.

Comparisons of Seasonal Fire Damage

Year		Area Burnt (a)	Fires	Suppres- sion Cost	Year		Area Burnt (a)	Fires	Suppres- sion Cost
		acres	no.	\$			acres	no.	\$
1962-63	..	21,680	126	17,918	1967-68	..	95,705	230	61,032
1963-64	..	66,518	252	74,012	1968-69	..	11,205	87	18,722
1964-65	..	11,815	146	33,930	1969-70	..	15,372	118	21,963
1965-66	..	129,147	317	54,968	1970-71	..	21,407	114	22,493
1966-67	..	426,219	264	108,018	1971-72	..	4,513	95	13,840

(a) Including private property inside the perimeter of fires on which suppressive action was taken.

During 1971-72 3,232 acres of State forest and Crown land were burnt. Of this area 1,182 acres were scrub wasteland, and 2,050 acres were forested land.

Chapter 17

LABOUR, PRICES AND WAGES

EMPLOYMENT

Historical

Tasmanian records for the first 90 years give no dissection of the population such that the total number of wage and salary earners can be accurately ascertained. The first census to provide the necessary analysis was that of 1891, the categories used on that occasion and in subsequent censuses being broadly comparable. The composition of the labour force is shown in the following table for each census from 1901 to 1961:

Elements of Labour Force: Censuses of 1901-1961

Year and Sex	Employer	Self-employed	Employee	Helper not Receiving Wage or Salary	'Not at Work' (a)	Total in Labour Force	Total Popula- tion
1901—Males	6,213	9,100	36,063	4,098	1,810	57,284	89,624
Females	462	2,434	10,229	2,071	356	15,552	82,851
Persons	6,675	11,534	46,292	6,169	2,166	72,836	172,475
1911—Males	8,477	6,742	40,555	3,916	1,492	61,182	97,591
Females	642	1,249	10,715	411	326	13,343	93,620
Persons	9,119	7,991	51,270	4,327	1,818	74,525	191,211
1921—Males	4,445	13,309	42,763	1,875	3,606	65,998	107,743
Females	347	1,593	11,484	67	510	14,001	106,037
Persons	4,792	14,902	54,247	1,942	4,116	79,999	213,780
1933—Males	7,277	11,887	38,084	1,752	10,226	69,226	115,097
Females	798	1,423	13,082	116	1,442	16,861	112,502
Persons	8,075	13,310	51,166	1,868	11,668	86,087	227,599
1947—Males	6,718	12,522	58,097	997	1,867	80,201	129,244
Females	659	1,198	17,693	86	481	20,117	127,834
Persons	7,377	13,720	75,790	1,083	2,348	100,318	257,078
1954—Males	6,886	12,616	72,481	778	1,215	93,976	157,129
Females	788	1,329	21,590	246	279	24,232	151,623
Persons	7,674	13,945	94,071	1,024	1,494	118,208	308,752
1961—Males	7,108	11,619	78,863	505	3,194	101,289	177,628
Females	1,113	1,572	25,853	194	896	29,628	172,712
Persons	8,221	13,191	104,716	699	4,090	130,917	350,340

(a) Includes those who stated they were usually engaged in work, but were not actively seeking a job at the time of the census by reason of sickness, accident, etc., or because they were on strike, changing jobs, temporarily laid off, etc. It also includes persons able and willing to work, but unable to secure employment, as well as casual and seasonal workers not actively engaged in a job at the time of a census.

Labour Force and Employment

It is essential to distinguish between 'labour force' and 'employees' since *employment* statistics in this Chapter relate mainly to wage and salary earners, who are, however, *only one component of the labour force* which also comprises employers, self-employed persons, unpaid helpers and unemployed persons. The category 'not at work' shown in the preceding table was first established in the 1947 Census and the comparison with earlier years is only approximate. For further details, see subsequent section headed 'Unemployment'. Data from the 1966 and 1971 Censuses (shown in the next section) could not be included in the previous table because of a changed method of collecting information.

Labour Force

From the 1966 Census, a new set of questions (based on activity in the week before the Census) was asked to establish who should be included in the labour force. The composition was as follows:

Elements of Labour Force: Censuses, 1966 and 1971

Year and Sex	Employer	Self-employed	Employee	Unpaid Helper	Un-employed	Total in Labour Force	Total Population
1966—Males	8,245	9,162	87,572	432	1,146	106,557	187,390
Females	1,759	1,644	35,451	940	971	40,765	184,045
Persons	10,004	10,806	123,023	1,372	2,117	147,322	371,435
1971—Males	6,841	8,442	90,627	277	1,786	107,973	196,442
Females	1,727	1,892	39,649	760	1,261	45,289	193,971
Persons	8,568	10,334	130,276	1,037	3,047	153,262	390,413

The new approach to labour force classification was as follows: in pre-1966 censuses people had been invited to classify themselves (e.g. as unemployed, employee, etc.) but in 1966 and 1971, people were invited to describe their *activity* in a specific week and the Statistician, using pre-determined definitions, classified them on the basis of their answers.

Briefly, the new questions asked whether the person: (i) Had a job or business of any kind last week (even if temporarily absent from it); (ii) Did any work at all last week for payment or profit. (Unpaid helpers who worked were to answer *yes*.); (iii) Was temporarily laid off by his employer without pay for the whole of last week; and (iv) Looked for work last week. (Ways of 'looking for work' were specified on the Census form.)

The 1966 and 1971 labour force included all persons answering *yes* to any one of these four questions. The effect of the new definition was to include additional persons in the labour force. This applied particularly to those working part-time (sometimes for only a few hours a week), some of whom in 1961 may not have considered themselves as '... engaged in an industry, business, profession, trade or service'. The main difference in classification between the 1901-1961 table and the 1966-1971 table is the substitution of the category 'unemployed' for the former category 'not at work'.

The total of persons recorded as unemployed in 1966 and 1971 was compiled from persons answering *no* to questions (i), (ii) and (iii) and *yes* to question (iv).

Monthly Series of Employment Statistics

The employment series shown in this Chapter is based on comprehensive data (referred to as 'benchmarks') derived from the Census of June 1966. Figures for the period subsequent to the Census of 1966 are estimated from three main sources, namely: (i) current pay-roll tax returns; (ii) current returns from government bodies; and (iii) some other direct current records of employment (e.g. for hospitals), supplemented by estimates of the change in the number of wage and salary earners not covered by the foregoing collections.

The benchmark figures are derived from particulars recorded for individuals on population census schedules, whereas the estimated monthly figures are derived from reports supplied by employers relating to enterprises or establishments. These two sources differ, in some cases, in scope and in reporting of industry; however, the industry dissection of the benchmark total has been adjusted, as far as possible, to an enterprise or establishment reporting basis. The industry classification used throughout the series is that of the Census of June 1966.

Pay-roll tax returns are lodged at present by all employers paying more than \$400 a week in wages (other than certain Commonwealth Government bodies, religious and benevolent institutions, public hospitals and organisations specifically exempted). The \$400 exemption limit dates from 1 September 1957 (the previous limit had been \$240). The passing of control of pay-roll tax in 1971 from the Commonwealth to the States did not affect the production of the wage and salary earners employment series.

It should be noted that employees in rural industry and in private domestic service are not included in the estimates because of the inadequacy of current data. The terms 'Employment', 'Number Employed', 'Employees' and 'Wage Earners' used throughout are synonymous with, and relate to, 'Wage and Salary Earners' on pay-rolls or in employment in the latter part of each month, as distinct from numbers of employees actually working on a specific date. They include some persons working part-time.

Figures for current months are subject to revision. As they become available, particulars of employment obtained from other Bureau collections are used to check and, where necessary, to revise estimates in relevant sections.

The table below gives estimated totals for employees in Tasmania at June and December of each year:

Wage and Salary Earners in Civilian Employment, June and December (Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(^{'000})

Year	June			December		
	Males	Females	Persons	Males	Females	Persons
1967	83.2	35.5	118.7	84.3	36.2	120.5
1968	84.7	37.1	121.8	86.4	37.8	124.2
1969	86.5	38.1	124.6	88.0	39.4	127.4
1970	88.5	39.3	127.8	88.9	40.8	129.7
1971 (a)	89.1	40.5	129.6	<i>r</i> 88.8	<i>r</i> 40.6	<i>r</i> 129.4
1972	89.4	40.2	129.6	89.8	41.4	131.2
1973	90.2	41.9	132.1			

(a) From July 1971 trainee teachers are excluded; some were previously classified as employees.

The detailed study of employment trends requires examination of monthly figures, so the next table has been compiled to show totals of employees for each month:

Wage and Salary Earners in Civilian Employment, Monthly Estimates (Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(^{'000})

Month	1971 (a)			1972			1973		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
January	89.2	39.9	129.1	89.2	39.8	129.0	90.3	41.0	131.3
February	89.5	40.5	130.0	r 89.3	r 39.8	r 129.1	90.4	40.9	131.3
March	89.7	40.8	130.5	89.8	40.1	129.9	90.9	41.6	132.5
April	90.1	40.6	130.7	89.9	40.2	130.0	90.6	42.0	132.6
May	89.7	40.7	130.4	r 89.7	40.5	r 130.2	90.8	42.3	133.1
June	89.1	40.5	129.6	89.4	40.2	129.6	90.2	41.9	132.1
July	r 88.6	r 39.8	r 128.4	88.9	40.3	129.2	90.4	42.0	132.4
August	r 88.5	r 39.7	r 128.2	88.9	40.5	129.4			
September	r 87.8	r 39.7	r 127.5	88.6	40.3	128.9			
October	r 87.8	r 39.9	r 127.7	88.1	40.2	128.3			
November	r 88.3	r 40.1	r 128.4	89.1	40.5	129.6			
December	r 88.8	r 40.6	r 129.4	89.8	41.4	131.2			

(a) From July 1971 trainee teachers are excluded; some were previously classified as employees.

Civilian Employees of Government Bodies

In Tasmania, as in other Australian States, a relatively high proportion of wage and salary earners is employed by government bodies operating at four levels: Commonwealth, State, local and semi-government (with the complication that semi-government authorities may have been created by either the Commonwealth or the State). For the purpose of these statistics, government employees include persons working on government services such as railways, bus services, banks, post offices, power and light, air transport, education (including universities), radio, television, police, public works, government factories, departmental hospitals and institutions, etc., as well as those engaged in administrative services.

The following table shows the number of government employees in Tasmania according to the level of government:

Civilian Employees of Government Bodies at 30 June (^{'000})

Year and Sex	Level of Government			Total
	Commonwealth (a)	State (a)	Local	
1971—Males	5.2	18.4	2.4	26.1
Females	1.7	7.0	0.3	9.0
Persons	6.9	25.4	2.8	35.1
1972—Males	5.3	(b) 18.7	3.0	26.9
Females	1.7	(b) 6.3	0.4	8.4
Persons	7.0	(b) 25.0	3.3	35.3
1973—Males	5.4	18.6	2.7	26.7
Females	1.7	6.8	0.4	8.9
Persons	7.2	25.4	3.1	35.7

(a) Includes semi-government authorities.

(b) From July 1971 trainee teachers are excluded; some were previously classified as employees.

The next table shows employees according to private and government sectors:

Total Civilian Employees of Private Employers and Government Bodies at 30 June
(^{'000})

Year	Private Employers			Government Authorities		
	Males	Females	Persons	Males	Females	Persons
1969	60.5	29.7	90.2	26.0	8.4	34.4
1970	62.2	30.6	92.8	26.3	8.7	35.0
1971	63.0	31.5	94.5	26.1	9.0	35.1
1972 (a)	62.5	31.8	94.3	26.9	8.4	35.3
1973	63.5	33.0	96.4	26.7	8.9	35.7

(a) From 1 July 1971 trainee teachers are excluded; some were previously classified as employees.

Industrial Classification of Employees

In the following table, wage and salary earners in civilian employment are classified according to industry:

Wage and Salary Earners in Civilian Employment: Industry Groups and Sub-Groups, June 1973
(Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(^{'000})

Industry Group and Sub-group							Males	Females	Persons
Forestry, Fishing and Hunting							1.1	0.1	1.2
Mining and Quarrying							4.7	0.2	4.9
Manufacturing							27.5	6.8	34.3
Electricity, Gas, Water and Sanitary Services							3.6	0.3	3.9
Building and Construction							11.0	9.3	11.3
Transport and Storage—									
Road Transport and Storage							3.2	0.3	3.5
Shipping and Stevedoring							2.0	0.1	2.1
Rail and Air Transport							1.8	0.2	2.0
Total							7.0	0.6	7.6
Communication							2.9	0.9	3.8
Finance and Property—									
Banking							1.5	0.9	2.4
Other							1.8	1.3	3.1
Total							3.2	2.3	5.5
Commerce—									
Retail Trade							6.3	7.2	13.6
Wholesale and Other Commerce							5.7	1.5	7.2
Total							12.1	8.7	20.8
Public Authority Activities (n.e.i.)							4.6	2.1	6.7
Other Industries—									
Health, Hospitals, etc.							1.8	7.1	8.8
Education							3.4	4.3	7.7
Amusement, Hotels, Personal Service, etc.							4.1	6.1	10.2
Other (a)							3.2	2.2	5.3
Total							12.5	19.7	32.1
Grand Total							90.2	41.9	132.1

(a) Comprises: Law, Order and Public Safety; Religion and Social Welfare; Other Community and Business Services.

The analysis of wage and salary earners by industry groups clearly indicates 'manufacturing' as the predominant activity. As employees in agriculture are excluded from the series, it is not possible to compare employment in primary, secondary and tertiary industries on the basis of the data appearing in the table. ('Employment on Rural Holdings' is described in Chapter 7 but the seasonal character of this work makes it difficult to estimate the level of rural employment in any given month.) Attention is drawn to the relatively minor level of employment in 'Public Authority Activities (n.e.i.)'; the civilian employees of government bodies shown in a previous table have been classified according to their appropriate industry group (e.g. transport, communication, health, education, etc.) and only those not included in a specified group appear in this item.

Industrial Classification of the Labour Force and of Employees

The Census of 30 June 1971 provides an analysis of the total labour force (including those engaged in rural industry); the percentage in each broad category was as follows: *primary production* (fishing, hunting, rural industries, forestry), 9.17; *mining and quarrying*, 3.05; *manufacturing*, 20.99; *electricity, gas, water and sanitary services*, 2.45; *building and construction*, 8.60; *transport and storage*, 5.06; *communication*, 2.15; *finance and property*, 5.21; *commerce* (wholesale and retail), 18.05; *public authority (n.e.i.) and defence services*, 4.80; *community and business services (including professional)* (e.g. schools, hospitals, etc.), 11.82; *amusement, hotels and other accommodation, cafes, personal service, etc.*, 5.07; *industry not stated*, 3.58; *total*, 100.00.

If the primary group is combined with *mining and quarrying*, only 12 per cent of the labour force was engaged in taking food and other materials direct from the land and the sea; a further 21 per cent was engaged in manufacturing. In other words only 33 per cent of the labour force was engaged in primary and manufacturing industries as defined for statistical purposes.

The next table specifies the main industrial groups and shows the industrial classification of *civilian employees* at annual intervals:

Wage and Salary Earners in Civilian Employment: Main Industry Groups
(Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(^{'000})

At 30 June	Mining and Quarrying	Manufacturing (a)	Building and Construction	Transport, Storage and Communication	Retail Trade	Wholesale Trade, etc.; Finance, Property	Public Authority (n.e.i.); Community Services, etc. (b)	Amusement, Hotels, Personal Service, etc.
MALES								
1969	4.2	27.8	11.8	9.9	6.0	8.4	10.9	2.7
1970	4.4	28.3	12.2	9.8	6.0	8.4	11.3	3.1
1971	4.8	28.2	11.4	9.8	6.0	8.8	11.9	3.4
1972 (c) ..	4.9	27.3	11.6	9.7	6.2	8.8	12.4	3.6
1973	4.7	27.5	11.0	9.9	6.3	8.9	12.9	4.1
FEMALES								
1969	0.2	7.1	0.3	1.5	6.8	3.4	14.0	4.5
1970	0.2	7.3	0.3	1.5	6.7	3.4	14.5	5.0
1971	0.2	6.9	0.3	1.4	6.9	3.7	15.1	5.4
1972 (c) ..	0.2	6.7	0.3	1.4	7.1	3.7	14.9	5.6
1973	0.2	6.8	0.3	1.5	7.2	3.8	15.7	6.1

Wage and Salary Earners in Civilian Employment: Main Industry Groups
(Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)—continued
 ('000)

At 30 June	Mining and Quarrying	Manufac- turing (a)	Building and Construct- ion	Trans- port, Storage and Commun- ication	Retail Trade	Wholesale Trade, etc.; Finance, Property	Public Authority (n.e.i.); Communi- ty Services, etc. (b)	Amuse- ment, Hotels, Personal Service, etc.
PERSONS								
1969	4.4	34.9	12.1	11.4	12.8	11.8	24.9	7.2
1970	4.6	35.6	12.5	11.2	12.7	12.0	25.9	8.0
1971	5.0	35.2	11.7	11.2	13.0	12.4	26.9	8.8
1972 (c) ..	5.1	34.0	11.9	11.2	13.3	12.5	27.2	9.2
1973	4.9	34.3	11.3	11.4	13.6	12.7	28.6	10.2

(a) Based on employment of enterprises predominantly engaged in manufacturing.

(b) Includes Law Order, and Public Safety, Religion and Social Welfare, Health Services, Education and Other Community and Business Services.

(c) From 1 July 1971 trainee teachers are excluded; some were previously classified as employees.

UNEMPLOYMENT

Historical

General

The total of persons 'unemployed' has been recorded by the Bureau of Census and Statistics at the dates of successive population censuses. The measurement of unemployment is complicated by definitional problems since persons normally in the labour force, but not having a job at the time of a census, may be in this position for reasons other than those associated with scarcity of employment. The classifications used in the 1921 and 1933 population censuses are shown in the *Year Book* 1972. At the 1933 Census, the unemployed were recorded as constituting 13.6 per cent of the labour force.

'Not at Work'

In the next table, a summary is made of data from the Censuses of 1947, 1954 and 1961, the principal comparison being the respective levels of the labour force and of those classified as 'Not at Work'.

'Not at Work' includes those who stated that they were usually engaged in work but were not actively seeking a job at the time of the census by reason of sickness, accident, etc. or because they were on strike, changing jobs or temporarily laid off, etc. It includes also persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the census. The numbers shown as 'Not at Work', therefore, do not represent the number of unemployed available for work but unable to obtain it.

The term 'Not at Work' does not apply to those who had a job but happened to be absent from it at census date due to sickness or leave.

Labour Force and Persons 'Not at Work'
Censuses of 30 June 1947, 1954 and 1961

Year and Sex	Labour Force (a)	Persons 'Not at Work'	
		Number	Proportion of Labour Force (Per Cent)
1947—Males	80,201	1,867	2.3
Females	20,117	481	2.4
Persons	100,318	2,348	2.3
1954—Males	93,976	1,215	1.3
Females	24,232	279	1.2
Persons	118,208	1,494	1.3
1961—Males	101,289	3,194	3.2
Females	29,628	896	3.0
Persons	130,917	4,090	3.1

(a) Comprises employers, self-employed, employees, helpers and those 'Not at Work'.

The interpretation of 'Not at Work' is made clear by an analysis of the 1961 figures: temporarily laid off, 457 persons; illness, 554; accident, 116; industrial dispute, 5; other causes, 366; *unable to secure employment*, 2,592; total not at work, 4,090 (as shown in table). Obviously this last category, *unable to secure employment*, is the key to measuring unemployment.

'Unemployed'

In the 1966 Census, the following new question was asked: Did the person look for work last week? Answer *yes* or *no*. (Note: 'Looking for work' means: (i) being registered with the Commonwealth Employment Service; or (ii) approaching prospective employers; or (iii) placing or answering advertisements; or (iv) writing letters of application; or (v) awaiting the result of recent applications.) In the 1971 Census this question was asked again with one refinement: was the person seeking a job for the first time or had the person had other jobs before?

After the exclusion of persons who were already employed, but who were seeking alternative employment, the following data were obtained from this approach:

Labour Force and Unemployed Persons, 1966 and 1971 Censuses

Year and Sex	Labour Force	Unemployed	
		Number	Proportion of Labour Force (Per Cent)
1966—Males	106,557	1,146	1.1
Females	40,765	971	2.4
Persons	147,322	2,117	1.4
1971—Males	107,973	1,786	1.7
Females	45,289	1,261	2.8
Persons	153,262	(a) 3,047	2.0

(a) Includes 226 males and 277 females 'looking for first job'.

It should be noted that 'Not at Work' in the 1947-1961 table is different in concept from the 'Unemployed' category in the 1966-1971 table.

Registrations With Commonwealth Employment Service

The Commonwealth Employment Service (C.E.S.) was established by Federal legislation under Section 47 of the *Re-establishment and Employment Act 1945*, and under the *Social Services Legislation Declaratory Act 1947*. The principal function of this service is to provide facilities in relation to employment for the benefit of persons seeking to change or obtain employment, or seeking to engage labour, and to provide facilities to assist in bringing about a high and stable level of employment throughout the Commonwealth.

The C.E.S. functions within the Employment Division of the Department of Labour on a decentralised basis. The central office is in Melbourne; there is a regional office in Hobart with district employment offices in Hobart, Launceston, Glenorchy, Devonport and Burnie, and agencies at Smithton and Huonville.

All applicants for unemployment benefits provided under the Commonwealth *Social Services Act 1947-1969* must register at a district employment office or agency of the C.E.S. which is responsible for certifying whether or not suitable employment is available. Claims for unemployment benefits are paid by the Department of Social Security; country residents remote from a Social Security employment office or agency may claim by mail.

The establishment of the C.E.S. created two new methods of measuring fluctuations in unemployment:

- (i) the number of persons registered for employment with the C.E.S. at the end of each month; and
- (ii) the number of persons receiving unemployment benefit from the Department of Social Security at the end of each month.

'Registered for Employment'

In the following table the persons shown are those who claimed, when registering with the C.E.S., *that they were not employed* and who were recorded on the last Friday in the month as unplaced. The count includes those referred to employers and those who may have obtained employment without notifying the C.E.S.; persons receiving unemployment benefit are included.

Persons Registered for Employment With Commonwealth Employment Service At June and December of Each Year (a)

Year	June			December		
	Males	Females	Persons	Males	Females	Persons
1963	2,112	1,315	3,427	2,713	2,210	4,923
1964	1,812	1,156	2,968	1,860	1,598	3,458
1965	1,260	975	2,235	1,426	1,350	2,776
1966	849	846	1,695	1,447	1,260	2,707
1967	1,157	959	2,116	1,716	1,348	3,064
1968	1,145	943	2,088	1,786	1,314	3,100
1969	1,305	815	2,120	1,863	1,612	3,475
1970	1,160	728	1,888	1,791	1,376	3,167
1971	1,726	956	2,682	2,786	1,746	4,532
1972	2,113	1,385	3,498	3,349	2,304	5,653
1973	2,201	1,517	3,718			

(a) Recorded as unplaced on the Friday nearest the last day of the month.

In interpreting the level of registration, account should be taken of the fact that registration is a *voluntary act*. Thus, while an increase in registrations may normally be taken to indicate an increase in unemployment, theoretically at least, it could merely indicate wider use of the facilities offered by the C.E.S.

The table that follows has been compiled to show the number registered for employment at the end of each month. The monthly figures are subject to pronounced seasonal influences, the most obvious being the effect of school-leavers on registrations in December and January.

**Persons Registered for Employment With Commonwealth Employment Service
At End of Each Month (a)**

Month	1971			1972			1973		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
January	1,630	1,261	2,891	2,893	1,757	4,650	3,261	2,048	5,309
February	1,318	1,151	2,469	2,211	1,433	3,644	2,634	1,841	4,475
March	1,013	949	1,962	1,619	1,313	2,932	1,825	1,494	3,319
April	1,195	983	2,178	1,689	1,361	3,050	1,784	1,422	3,206
May	1,366	1,028	2,394	1,901	1,367	3,268	1,892	1,449	3,341
June	1,726	956	2,682	2,113	1,385	3,498	2,201	1,517	3,718
July	1,750	937	2,687	2,368	1,336	3,704	2,092	1,394	3,486
August	1,825	831	2,656	2,468	1,226	3,694	2,067	1,325	3,392
September	2,038	838	2,876	2,319	1,171	3,490			
October	1,905	788	2,693	2,232	1,098	3,330			
November	1,709	868	2,577	3,139	2,222	5,361			
December	2,786	1,746	4,532	3,349	2,304	5,653			

(a) At Friday nearest last day of month.

Persons Receiving Unemployment Benefit

It is possible for a person to register as unemployed but make no claim for unemployment benefit. On the other hand, a person claiming unemployment benefit is required to register for employment. The next table gives details of persons receiving unemployment benefit each month:

Monthly Number of Persons Receiving Unemployment Benefit (a)

Month	1966	1967	1968	1969	1970	1971	1972	1973
January ..	404	452	536	648	634	518	1,125	2,572
February ..	312	388	474	543	568	502	1,144	2,439
March ..	217	334	361	332	404	347	1,113	1,881
April ..	219	315	396	410	349	405	1,191	1,862
May ..	311	380	456	499	348	574	1,278	2,242
June ..	433	526	635	600	437	782	1,697	2,330
July ..	512	597	642	714	544	957	1,922	2,279
August ..	494	620	667	681	561	1,062	1,854	2,200
September ..	470	533	615	628	540	1,165	1,813	
October ..	453	419	565	481	473	1,215	1,698	
November ..	404	432	575	544	410	1,148	1,879	
December ..	434	536	658	621	517	1,399	2,214	

(a) Number at the last Saturday of month. Source: Department of Social Security.

The number of males and females in receipt of unemployment benefit is shown for June of each year:

Persons Receiving Unemployment Benefit at June (a)

Particulars	1966	1967	1968	1969	1970	1971	1972	1973
Males ..	224	325	334	381	290	531	1,087	1,306
Females ..	209	201	301	219	147	251	610	1,024
Persons ..	433	526	635	600	437	782	1,697	2,330

(a) Number at the last Saturday of June in each year. Source: Department of Social Security.

Comparison of Unemployment Data

The following table shows unemployment recorded at the 1961, 1966 and 1971 Censuses and also other measures of unemployment covering approximately the same points in time. In 1966 and 1971 more persons were recorded as unemployed in the census than the number registered with the Department of Labour; however, in 1961 the position was reversed.

Unemployed Persons, Persons Registered for Employment and Persons Receiving Unemployment Benefit at 30 June

Particulars	1961	1966			1971		
	Persons	Males	Females	Persons	Males	Females	Persons
CENSUS OF 30 JUNE							
Unable to Secure Employment (a)	2,592	1,146	971	2,117	1,786	1,261	3,047
Temporarily Laid Off	457	} <i>n.a.</i>	} <i>n.a.</i>	} <i>n.a.</i>	} <i>n.a.</i>	} <i>n.a.</i>	} <i>n.a.</i>
Illness	554						
Accident	116						
Industrial Dispute	5						
Other	366						
Total 'Not at Work' ..	4,090	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
DEPARTMENT OF LABOUR							
Registered for Employment (b)	3,213	849	846	1,695	1,726	956	2,682
DEPARTMENT OF SOCIAL SECURITY							
Receiving Unemployment Benefit (c)	1,336	224	209	433	531	251	782

(a) Figures for 1966 and 1971 are for category 'unemployed'.

(b) At Friday nearest last day of June.

(c) At last Saturday of June.

INDUSTRIAL LEGISLATION AND CONDITIONS

Apprenticeship

Apprenticeship Commission

The Apprenticeship Commission was set up under the *Apprentices Act 1942* to: (i) encourage, regulate and control training in proclaimed trades; (ii) assist youths towards successful trade courses; and (iii) provide properly trained craftsmen for industry. The Commission, which meets each month, consists of three representatives of trade unions, three of employers' organisations, a nominee of the Minister for Education and the President, all members being appointed for a three-year term. To keep the Commission up-to-date with the latest developments, Trade Advisory Committees have been formed for particular industries, with both employers and employees represented.

Apprentices are trained at work and at technical classes, and supervisors report on the effectiveness of the training; supervisors also give on-the-spot advice to employers and apprentices where their mutual obligations are concerned and refer matters, that cannot be settled in this way, to the Commission for decision.

Apprenticeships

An apprenticeship may not be commenced without the consent of the Commission which also determines the suitability of employers for training apprentices and the educational qualifications required for entry to a particular trade.

The apprentice serves a probationary period before a contract (indentures) is made with the employer and registered with the Commission. The Commission determines disputes about the contracting parties' rights, duties and liabilities and no apprenticeship may be terminated, suspended or assigned other than by its authority; when an apprenticeship has been completed, the employer and the Commission certify to this effect. Where apprentices are required to undertake technical training, either at technical classes or by correspondence, instruction is mandatory. Apprentices attend technical classes for eight hours per week during working hours without loss of pay. (Country apprentices in remote areas attend three fortnightly training periods each year.) The progress apprentices make is reported to the Commission and unsatisfactory reports are investigated.

Apprentices are encouraged in the following ways: (i) by payment of *efficiency allowances* for annual examinations passed successfully in the allotted time; (ii) by *certificates of efficiency* for apprentices successfully completing the mandatory trade course of technical instruction; (iii) by reducing the apprenticeship term by one year in some cases, where the qualifying trade course is completed in the allotted time; and (iv) by the award of bursaries.

Four bursaries (two \$400, two \$200) are awarded each year to outstanding apprentices, and a fifth bursary (\$600) is awarded to 'The Apprentice of the Year'. These bursaries are given to assist the most promising apprentices to secure wider trade experience with another employer as part of the apprenticeship training, either in Tasmania or another State. Arrangements are made by the Commission to suit the bursary holders' wishes.

Number of Apprentices

The following table shows the number of apprentices in Tasmania and also details of new apprenticeships registered and apprenticeships completed:

Number of Apprentices; Apprenticeships Registered and Completed

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Number at 30 June (a)—					
Indentured Apprentices	3,470	3,585	3,592	3,583	3,281
Apprentices on Probation	401	295	320	235	322
Total	3,871	3,880	3,912	3,818	3,603
During Year—					
New Apprenticeships Registered	1,025	1,034	990	998	1,117
Apprenticeships Completed	705	713	763	778	882

(a) Distributed in proclaimed trades; approximately 130 had been proclaimed at 30 June 1973.

Industrial Accidents

Industrial accident statistics in Tasmania are compiled from returns of workers' compensation claims submitted by insurance companies, self-insurers and State Government Departments. The statistics first published by the Bureau for 1969-70 replaced those formerly published by the Department of Labour and Industry. Because of the number of minor definitional, conceptual and classification changes adopted for the new series, the statistics shown in the following tables are not strictly comparable with those published for earlier years by the Department of Labour and Industry.

The collection is limited to those employees covered by the *Tasmanian Workers' Compensation Act* and therefore excludes self-employed persons, Commonwealth Government employees and the police. Exclusion of self-employed persons is likely to reduce coverage

in industries where self-employment is prevalent (e.g. retail trade, rural industries). Because of the exclusion of Commonwealth employees, some industries are not covered at all, while coverage is considerably reduced in other industries, e.g. communications.

In compiling the statistics the following definitions have been adopted:

Industrial Accident: A compensated work injury causing death or absence of the injured person from work for one day or more. Disease cases and accidents occurring during journeys or recess periods are included. The number of accidents is based on claims finalised during each year ended 30 June. The accidents to which the claims refer may have occurred in the year the claim was finalised or during any earlier year.

Time Lost: The actual time lost from work of persons reported to be temporarily incapacitated or permanently partially-incapacitated as a result of a compensated work injury.

Cost of Claims: Includes compensation of wages lost, hospital and medical expenses and lump sum settlements of cases finalised during the year ended 30 June.

Industry Groups: Classified in accordance with the 1966 Census Classification of Industries and Occupations.

The table that follows shows the number of industrial accidents which occurred during 1971-72 and the time lost through those accidents which caused temporary and permanent partial-disability.

Fatal and Non-fatal Industrial Accidents: Industry Group and Time Lost, 1971-72

Industry Group	Accidents		Time Lost—Temporary Disability Only (a)	
	Fatal	Non-fatal	Total	Average per Accident
	no.	no.	weeks	weeks
Primary, Mining, etc.—				
Primary Production	3	548	1,655	3.0
Mining	1	707	1,764	2.5
Total	4	1,255	3,419	2.7
Manufacturing—				
Food, Drink, etc.	1	775	1,540	2.0
Wood and Wood Products, etc. ..	1	757	1,563	2.1
Glass and Clay Products, etc. ..	..	74	120	1.6
Metal and Metal Products, etc. ..	1	634	1,210	1.9
Transport Equipment .. ..	..	62	79	1.3
Other Manufacturing	1	655	1,199	1.8
Total	4	2,957	5,712	1.9
Other Industries—				
Electricity, Gas, etc. .. ..	..	118	246	2.1
Construction	4	1,471	2,695	1.8
Wholesale and Retail Trade	1	716	1,407	2.0
Transport, Storage, etc. .. ..	..	447	1,115	2.5
Finance and Property	1	21	57	2.7
Public Administration .. ..	..	62	102	1.6
Community Services .. ..	..	250	545	2.2
Amusements, Hotels, etc. .. ..	..	151	456	3.0
Total	6	3,236	6,623	2.0
Grand Total	14	7,448	15,754	2.1

(a) Includes permanent partial-disability cases.

The cost of industrial accidents, as applicable to each industrial group, is shown in the next table:

Industrial Accidents: Industry Group and Cost of Claims, 1971-72
(£)

Industry Group	Cost of Claims			
	Fatal Accidents	Non-fatal Accidents	Total Accidents	Average per Non-fatal Accident
Primary, Mining, etc.—				
Primary Production	28,998	116,297	145,295	212
Mining	14,342	259,842	274,184	368
Total	43,340	376,139	419,479	300
Manufacturing—				
Food, Drink, etc.	840	114,886	115,726	148
Wood and Wood Products, etc. ..	13,908	129,994	143,902	172
Glass and Clay Products, etc. ..	..	9,246	9,246	125
Metal and Metal Products, etc. ..	11,645	128,032	139,677	202
Transport Equipment .. .. .	..	6,242	6,242	101
Other Manufacturing	1,160	87,800	88,960	134
Total	27,553	476,200	503,753	161
Other Industries—				
Electricity, Gas, etc. .. .. .	..	23,324	23,324	198
Construction	36,830	219,984	256,814	150
Wholesale and Retail Trade	399	105,050	105,449	147
Transport, Storage, etc. .. .. .	..	88,761	88,761	199
Finance and Property	12,335	2,079	14,414	99
Public Administration .. .. .	..	6,236	6,236	101
Community Services .. .. .	..	36,783	36,783	147
Amusements, Hotels, etc. .. ..	..	31,671	31,671	210
Total	49,564	513,888	563,452	159
Grand Total	120,457	1,366,227	1,486,684	183

Industrial Safety and Accident Prevention

Responsibility: The Department of Labour and Industry is concerned with industrial safety and accident prevention, and discharges this function with the knowledge that there are approximately 8,000 accidents involving lost time each year among the population covered by the *Workers' Compensation Act*.

Cause of Industrial Accidents: Two major factors are held to underly most industrial accidents: (i) unsafe working conditions; and (ii) unsafe actions. In some accidents both factors may be operative.

Prevention: Prevention obviously has a two-fold aspect: (i) inspection programmes aimed at pin-pointing unsafe working conditions; and (ii) education and training designed to eliminate unsafe actions.

Training: The problem of training is basically one of educating supervisors and foremen since an attitude of 'safety consciousness' has to start with management. Formal training in industrial safety and accident prevention is available at Hobart and Launceston Technical Colleges in two-year courses. Informal training is arranged by the Department of Labour and Industry, the two-day courses available being based on the concept of 'training within industry'. Single lectures on industrial and farm safety are also available and the Department makes arrangements to provide lecturers on request.

Safety Officers: It is expected that large undertakings will have their own specialists concerned with safety matters. However, government safety officers are available to industries which may use their services for a short period. Their function is purely advisory and they assist organisations which wish to stress safety or to reduce their accident rates.

Research Facilities: The Department carries out a safety research programme. A comprehensive classification of safety data and information is maintained from local, interstate and overseas sources.

Workers' Compensation

Legislation: Workers' compensation legislation in Tasmania was first introduced in 1910 but it was not until 1927 that the principle of compulsory insurance was embodied in the *Workers' Compensation Act 1927*, as amended.

Purpose and Limitations: The principle of the Act is provision for compensation on the death or disablement of a worker, if occasioned by personal injury caused in the course of employment. In 1966 the Act was amended to extend compensation cover for injuries sustained by a worker travelling in either direction between his residence and place of employment. The Act provides that this cover to and from work applies only for reasonably direct journeys, except for breaks or deviations connected with the worker's employment. Amendments in 1970 extended coverage to workers who are temporarily absent from work during meal breaks. Self-inflicted injuries are excluded and certain limitations are applied where serious or wilful misconduct is involved. Monetary benefits have fixed limits. All reasonable costs of medical, hospital, nursing and ambulance services, and in the event of death, the reasonable costs of burial or cremation are paid up to a maximum of \$4,000. In addition weekly payments are made during incapacity and there is a lump sum entitlement for scheduled injuries.

Non-contributory Basis: The Act is non-contributory, i.e. the worker does not pay into any fund for the provision of benefits. The employer is obliged to insure with an approved insurance company against the liability to compensation, except in certain cases where he is allowed to carry his own risk.

In any case where an employer has no paid-up insurance policy, where the employer cannot be found or where the employer or his insurance company has become insolvent, the worker may claim against a 'nominal insurer', as if he were the employer.

Amounts paid by the 'nominal insurer' are provided by all insurance companies carrying on workers' compensation business. Each company is required to contribute to these types of claims in proportion to the premium income derived from policies effected during the preceding year.

Compensation on Death: Where death results from an injury, the compensation payable to dependants wholly dependent on the worker's earnings is 284 times the current Hobart base rate, plus seven times the current Hobart base rate for each worker's child under sixteen years at the date of injury. Partial dependants are entitled to proportionate amounts.

Base Rate means the minimum weekly wage payable to the lowest paid adult male employed at Hobart under the Federal Metal Trades Award (in June 1973 the minimum was \$60.70 per week).

Weekly Payments During Incapacity: When the worker is *totally incapacitated* he is entitled to receive weekly compensation payments at whichever of the following alternatives is greater: (i) the rate of his average weekly earnings over the period of twelve months immediately preceding the accident; or (ii) the ordinary time rate of pay for the work on which he was engaged immediately prior to the accident. When the worker is *partially incapacitated* the weekly payments are reduced by any amount that he is able to earn in some other suitable employment.

Maximum Limit of Weekly Payments: The only limit placed on weekly payments is that they must not exceed the employee's average weekly earnings prior to sustaining the injury.

In cases of partial or total incapacity of any worker, the total liability of an employer in making weekly compensation payments is limited to 284 times the current Hobart base rate.

Lump Sum Payments: In addition to weekly incapacity payments, lump sum payments are made in respect of the loss of members of the body or of bodily powers of function. In the Act, specific injuries are listed and the single amount payable is related to the current Hobart base rate (specified as B in the following examples): (i) loss of both feet, $B \times 284$; (ii) loss of leg, $B \times 138$; (iii) loss of thumb, $B \times 51$; and (iv) loss of great toe, $B \times 35$, etc. Where more than one of these injuries are suffered in the same accident, a maximum payment equal to $B \times 532$ may be paid.

Factory Legislation and Inspection

Legislation: Working conditions in factories in Tasmania are covered under the *Factories, Shops and Offices Act* 1965, as amended, which makes provision with respect to the health, welfare, safety, and working conditions of persons employed in factories, shops and offices and the sanitation of factories, shops and offices.

Registration Fees: All factories are required to register with the Department of Labour and Industry; fees date from 1 January each year. Fees for registration range from \$2 for small factories (where less than four persons are employed), up to \$40 for factories employing one hundred persons, and \$20 for each additional hundred.

New Factories: The *Local Government Act* 1962 requires that plans and specifications for proposed new factory buildings be submitted to the Department of Labour and Industry before being approved by the local government authority. This ensures compliance of the proposed factory buildings with regulations in regard to natural lighting, ventilation, fire exits, fire protection, stairs, access ladders, platforms, change and meal rooms, etc.

Application for Registration: Following application for registration of premises to be used as a factory, an inspection is made. If the premises are suitable without alteration, a certificate of registration is issued. If alterations are required, a permit to occupy may be issued for a limited time, while renovations, to comply with the Act's requirements, are made. Once the factory is operating, a further inspection is made to study processes and working conditions. Any unsafe situations and practices are drawn to the attention of management.

Inspection: After the initial registration, routine inspections are made by officers of the Department to remedy or prevent unsafe conditions or unsafe practices which may have developed. Particular attention is given to overcrowding, ventilation, natural and artificial lighting, conditions of floors, etc. Access ladders and platforms are checked for compliance with prescribed standards. If contamination of the atmosphere by dust or toxic fumes is present, means of removal are studied. Safe handling and storage of dangerous substances; the provision of fire protection, fire exits and escapes; adequacy of sanitary conveniences, washing, change and meal rooms; the provision of safety equipment, etc. are periodically checked.

Accident Reports: Where accidents involving the use of machinery incapacitate, or appear likely to incapacitate, workers for at least one full day or shift, factory management is required to notify the Department. These accidents are investigated in an endeavour to eliminate recurrences. See 'Industrial Safety and Accident Prevention' in this Chapter.

Construction Sites: Regulations also apply to working conditions on construction works and provide for suitable sanitary, washing and general amenities, in addition to general safety precautions. Where persons are required to work on any construction works at a height of not less than 20 feet above the ground or at a depth of not less than five feet below ground level, the provision of safety helmets is compulsory.

The Inspection of Machinery

Legislation: Generally, the *Inspection of Machinery Act* 1960, as amended, applies to all machinery of one or more horsepower used in manufacturing or industrial processes and specifically includes boilers, pressure vessels, lifts and cranes. By proclamation, machines not ordinarily covered by the Act may be made subject to its provisions. The Department of Labour and Industry is responsible for application of the Act which is administered by a chief inspector and district inspectors at Hobart, Launceston, Burnie and Devonport.

Machinery Inspection: An owner (defined as a person who has the control of or is in charge of machinery) acquiring machinery as defined in the Act is required to notify the nearest district inspector to obtain a certificate of safety. Inspection may reveal the need for additional safeguards before permission can be given to operate the machine; alternatively the owner may be given a set period in which to comply.

Certificates of safety are renewed annually providing the machinery satisfies current efficiency and safety standards.

Lifts Inspection: Lifts, cranes and hoists are subject to the same inspections as other machinery. In addition, design approval must be obtained before construction; tests, including beam deflections under load, are made on completion.

Boilers Inspection: Before boilers or pressure vessels are installed, the design must be approved by the Chief Inspector and conform with Australian or specified overseas standards. Inspections are made on installation and thereafter annually, unless a special investigation is required arising from plant modification, accidents or from employers' or employees' requests.

Long Service Leave for Casual Employees

Coverage

The *Long Service Leave (Casual Employment) Act* 1971, which came into force on 23 March 1972, extends long service leave entitlements to casual workers in the building and construction industry. Building and construction, for purposes of the Act, embraces a wide range of activities (construction, reconstruction, alterations, demolition, maintenance or repair of): (i) buildings; (ii) roads, bridges and railways; (iii) port, harbour and navigation facilities; (iv) water, irrigation and sewerage works; (v) pipelines; (vi) drilling rigs; (vii) structures (e.g. scaffolding or cranes) and site preparation associated with any of the forementioned purposes; and (viii) work on ships, boats or other vessels. Dunnaging of ships' holds also comes within the Act's ambit.

Calculation of Reckonable Service

Reckonable service is employment which counts towards the calculation of long service leave entitlements. The qualifying units to be accrued are periods of at least one full day's employment with each employer. If a person ceases work after at least seven days or more the employer is required to furnish a certificate, showing duration of employment of the employee, to the Secretary for Labour and Industry and is also required to make a payment into the Long Service Leave (Casual Employment) Fund.

Certain interruptions to employment are counted as a part of the working period for calculation of reckonable service. Included are: (i) annual leave; (ii) leave from work caused by illness or injury and certified by a medical practitioner; (iii) leave, with consent of the employer, to attend a meeting of the Apprenticeship Commission of Tasmania or any committee appointed under the *Apprentices Act* 1942; (iv) leave resulting from on-the-job injury; (v) absence from work resulting from a summons to serve as a juror or give evidence before a court; and (vi) leave to attend to his duties as a member of a Wages Board. Absences from work caused by industrial disputes are not counted as part of service for purposes of calculating reckonable service.

When an employee has accumulated the equivalent of 15 years service he becomes entitled to a long service leave payment. In certain circumstances (e.g. employment terminated through incapacity of the employee to continue work or at any time after retiring age has been reached) long service leave may be paid after seven years work on a pro-rata basis.

Administration

The Secretary for Labour and Industry is required to maintain records showing service of each employee covered by the Act. These records are the basis for paying long service leave entitlements. Departmental inspectors are responsible for policing provisions of the Act and regulations made under it. It is the inspector's responsibility to ensure that employers maintain the necessary employment records and furnish correct certificates to the Secretary for Labour and Industry. They are permitted to carry out enquiries to ascertain whether an employee is working on a job deemed as counting towards the calculation of reckonable service. To assist inspectors carry out these duties, the Act gives them the right of access to employers' premises.

The legislation established a special trust fund, the Long Service Leave (Casual Employment) Fund, which is administered by Treasury Department officials. The main receipts into the fund are long service leave contributions paid by employers. The fund is also credited with any other receipts which may be required under the Act. From the fund are paid long service leave entitlements, costs incurred by Treasury in administering the fund and any other amount as required by the Act.

Shop Trading Hours

Legislation: Before 1967 shop trading hours were regulated by the *Factories, Shops and Offices Act 1958*, as amended. A deadlock between the two houses of the Tasmanian Parliament in 1967 resulted in the removal of all legislative restrictions on shop trading hours as from 1 January 1968.

However, a limiting factor was introduced with the adoption by Wages Boards of increased penalty rates for retail trade employees. As a result few shopkeepers have varied their trading hours from those which applied under the relevant section of the *Factories, Shops and Offices Act*.

Petrol Filling Stations: Although restrictions on shop trading hours were removed following the 1967 Parliamentary deadlock, legislation covering petrol filling station trading hours was retained. Ordinary permitted hours are 6.30 a.m. to 7.30 p.m. on week days (with an extra two hours on Friday evening) and 12.30 p.m. closing on Saturdays and public holidays. However, a system operates to give the public an opportunity to buy petrol outside these hours and on Sundays at rostered filling stations.

TRADE UNIONS

Details of membership of trade unions are collected at 31 December each year. The following table shows details of the number of unions and the number of members in Tasmania:

Trade Unions: Numbers and Membership

Year Ended 31 December	Number of Separate Unions	Number of Members (⁰⁰⁰)	Increase in Membership (a) (Per Cent)
1939	79	22.1	..
1967	107	68.1	4.0
1968	112	68.2	0.1
1969	112	69.9	2.4
1970	114	73.9	5.7
1971	111	75.2	1.8
1972	112	80.5	7.1

(a) On preceding year.

PRICES

Retail Prices and Price Indexes

General

The description of price indexes that follows is mainly an abridgement of the text appearing in the *Labour Report* of the Commonwealth Bureau of Census and Statistics; this report is a basic document in any serious study of official price indexes.

Retail Price Index Numbers from 1901

Retail prices of food and groceries and average rentals of houses for periods extending back to the year 1901 were collected by the Commonwealth Statistician. A continuous price series from 1901 to the present day (shown below) has been constructed from the various indexes in use during this period to provide a broad indication of long-term trends in retail price levels. The index numbers are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: 1901-1914, the 'A' Series; from 1914 to 1946-47, the 'C' Series; from 1946-47 to 1948-49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series excluding rent; and from 1948-49, the Consumer Price Index. It should be noted that this long-term series is for the six capital cities combined, *not for Hobart alone*.

Retail Price Index Numbers from 1901

Six State Capital Cities Combined

(Base: Year 1911 = 100)

Year	Index Number	Year	Index Number	Year	Index Number
1901	88	1941.. ..	167	1967.. ..	534
1911	100	1946.. ..	190	1968.. ..	548
1921 (a) ..	168	1951.. ..	313	1969.. ..	564
1926	168	1956.. ..	419	1970.. ..	586
1931	145	1961.. ..	471	1971.. ..	621
1936	141	1966.. ..	517	1972.. ..	658

(a) November; remaining figures are averages for the respective years.

Consumer Price Index

The index currently in use is the Consumer Price Index. A comprehensive view of the present composition and weighting of the Consumer Price Index is given in the following table. The weights shown are those comprising the index for the six State capital cities combined. Broadly they are based on the estimated pattern of consumption for the period 1962-63 to 1966-67 valued at relevant prices of December quarter 1968. The weighting indicates the relative influence given to the various components in measuring the degree of price change in the index from December quarter 1968 (i.e. from the beginning of the current linked series).

Consumer Price Index

Composition and Weighting Pattern at December Quarter 1968 for the Six State Capital Cities Combined

Group, Section, etc.	Percentage Weight	
	Section, etc.	Group
Food—		
Cereal Products—Bread, Flour, Biscuits, Rice and Breakfast Foods	4.1	31.3
Dairy Produce—Milk, Cheese, Butter and Eggs	6.0	
Potatoes, Onions, Preserved Fruit and Vegetables—Potatoes and Onions, Canned and Dried Fruits, and Canned and Frozen Vegetables	2.7	
Soft Drink, Ice Cream and Confectionery	4.3	
Other (except Meat)—Sugar, Jam, Margarine, Tea, Coffee, Baby Foods, and Sundry Canned and Other Foods	3.3	
Meat—Butcher's (Beef, Mutton, Lamb and Pork)	8.4	
Processed (Bacon, Smallgoods and Canned Meat) including Poultry ..	2.5	

Consumer Price Index
Composition and Weighting Pattern at December Quarter 1968 for the Six State Capital Cities Combined—
continued

Group, Section, etc.	Percentage Weight	
	Section, etc.	Group
Clothing and Drapery—		
Clothing—		
Men's	3.6	14.1
Women's	5.0	
Boys'	0.6	
Girls'	0.8	
Piecegoods, etc.—Wool, Cotton and Rayon Cloth, Nursery Squares and Knitting		
Wool	0.8	
Footwear—Men's, Women's and Children's	2.5	
Household Drapery—Bedcloths, Towels, Tablecloths, etc.	0.8	
Housing—		
Rent—Privately Owned Houses	2.1	14.2
Government Owned Houses	0.9	
Privately Owned Flats	3.1	
Home Ownership—House Price	3.4	
Rates	2.7	
Repairs and Maintenance	2.0	
Household Supplies and Equipment—		
Fuel and Light—Electricity	2.4	12.5
Gas	1.0	
Other (Firewood, Heating Oil, Briquettes and Kerosene)	0.6	
Household Appliances—Refrigerator, Washing Machine, Stove, Radio Set, Television Set, Vacuum Cleaner, Electric Iron, etc.	2.6	
Other Household Articles—		
Furniture and Floor Coverings	1.9	27.9
Kitchen and Other Utensils, Gardening and Small Tools	0.7	
Household Sundries (Household Soaps, etc.)	1.0	
Personal Requisites (Toilet Soap, Cosmetics, etc.)	1.2	
Proprietary Medicines	0.9	
School Requisites	0.2	
Miscellaneous—		
Transport—Fares—Train	1.0	27.9
Tram and Bus	1.5	
Private Motoring—Car Purchase	3.4	
Car Operation	5.8	
Tobacco and Cigarettes	3.6	
Beer	3.7	
Services—Health (Dentist, Doctor, Hospital)	3.3	
Hairdressing (Haircut, Wave, etc.)	0.7	
Drycleaning	0.5	
Shoe Repairs	0.2	
Postal and Telephone Services	1.1	
Other—Radio and Television Operation	1.1	
Cinema Admission	0.8	
Newspapers and Weekly Magazines	1.2	
Total	100.0	100.0

Six Capital Cities Index: The Six Capital Cities Consumer Price Index is derived as the weighted average of the indexes for the individual cities, the basis of weighting being their populations as recorded at successive censuses.

Comparison of the Six Linked Series: The Consumer Price Index is a chain of 'fixed weight aggregative' indexes, with significant changes in composition and weighting effected at the linking dates; the principal changes were:

- (i) June quarter 1952—introduction of private motoring; changed proportions for modes of house occupancy; change in weights of fuel and fares.
- (ii) June quarter 1956—changed proportions in modes of house occupancy; changed weights for fuel, fares and private motoring.
- (iii) March quarter 1960—introduction of television.
- (iv) December quarter 1963—changed weights for fuel, light, fares and motoring; revised housing weights.
- (v) December quarter 1968—changed weights for all items; introduction of poultry, rented privately-owned flats, heating oil, briquettes and health services (by dentists, doctors, hospitals and health insurance funds).

The next table has been compiled to show the percentage contribution to the total index of each of the major groups, first at the beginning of each series, and then at the quarter in which the linking transition was made.

Consumer Price Index: Analysis of Weighting in Six Linked Series

Linked Series	Percentage Contribution to Total Index (Weighted Average, Six Capital Cities)					
	Food Group	Clothing and Drapery Group	Housing Group	Household Supplies and Equipment Group	Miscellaneous Group	Total
First— June Quarter 1949 .. June Quarter 1952 (a)	31.3 35.7	22.8 23.0	11.4 9.2	13.1 12.2	21.4 19.9	100.0 100.0
Second— June Quarter 1952 (b) June Quarter 1956 (a)	33.6 34.3	21.6 20.0	9.4 10.5	11.7 10.9	23.7 24.3	100.0 100.0
Third— June Quarter 1956 (b) March Quarter 1960 (a)	33.7 33.0	19.7 19.5	10.5 11.0	11.6 11.5	24.5 25.0	100.0 100.0
Fourth— March Quarter 1960 (b) Dec. Quarter 1963 (a)	32.1 31.6	19.0 18.8	10.7 12.0	13.2 12.6	25.0 25.0	100.0 100.0
Fifth— Dec. Quarter 1963 (b) Dec. Quarter 1968 (a)	32.1 32.8	16.9 15.8	12.6 13.2	14.5 13.1	23.9 25.1	100.0 100.0
Sixth— Dec. Quarter 1968 (b)	31.3	14.1	14.2	12.5	27.9	100.0

(a) Change in proportions due to disparate price movements during short period shown.

(b) Change in proportions due to deliberate changes in composition or weighting.

Consumer Price Index, Hobart

The Consumer Price Index for Hobart is compiled to the base 1966-67 = 100.0, the number 100.0 being the base value for each of the five major groups (Food, Clothing and Drapery, Housing, etc.) and also for the 'All Groups' index.

The following table has been compiled to show group index movements for Hobart on a quarterly basis:

Consumer Price Index: Quarterly Group Index Numbers, Hobart (a)

(Base of Each Index: Year 1966-67 = 100.0)

Quarter	Food	Clothing and Drapery	Housing	Household Supplies and Equipment	Miscellan- eous	All Groups
1968-69—September ..	105.1	103.5	105.5	104.1	106.3	105.0
December ..	105.3	104.5	108.4	104.1	107.3	105.8
March ..	105.1	104.7	109.4	104.7	109.0	106.5
June ..	105.8	105.3	110.1	105.2	109.4	107.0
1969-70—September ..	105.6	106.2	110.6	105.5	110.0	107.4
December ..	106.0	107.6	112.3	105.8	110.4	108.1
March ..	106.9	108.2	113.2	106.3	111.2	108.9
June ..	106.9	109.4	114.1	106.9	112.5	109.6
1970-71—September ..	108.4	109.5	115.0	107.6	112.2	110.2
December ..	110.1	111.0	117.0	108.4	116.3	112.4
March ..	109.5	112.0	118.2	109.1	118.3	113.2
June ..	110.2	115.0	119.2	111.6	119.4	114.6
1971-72—September ..	111.3	115.9	120.4	112.4	r 123.8	r 116.5
December ..	113.0	118.2	124.1	117.4	r 130.3	r 120.3
March ..	113.5	118.7	125.3	117.7	r 130.8	r 120.9
June ..	113.9	121.1	126.8	118.1	r 132.1	r 122.0
1972-73—September ..	115.9	121.8	128.3	118.9	133.5	123.4
December ..	117.9	124.6	131.6	119.6	134.0	125.1
March ..	121.4	125.5	132.7	120.3	137.7	127.5
June ..	124.9	130.4	134.4	122.5	141.0	130.8

(a) Figures after decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

The following table shows the 'All Groups' index numbers for Hobart, quarter by quarter, and also as averages for financial years:

Consumer Price Index: All Groups Index Numbers, Hobart (a)

(Base of Index: Year 1966-67 = 100.0)

Year	Quarter Ending—				Average for Year
	September	December	March	June	
1960-61	89.1	90.0	90.9	91.3	90.3
1961-62	91.4	90.9	90.3	90.3	90.7
1962-63	90.4	90.8	90.7	90.8	90.7
1963-64	91.2	91.4	91.9	92.2	91.7
1964-65	93.3	94.5	94.9	95.8	94.6
1965-66	97.0	98.3	97.8	98.7	98.0
1966-67	98.6	99.2	100.6	101.5	100.0
1967-68	104.3	105.0	104.6	104.6	104.6
1968-69	105.0	105.8	106.5	107.0	106.1
1969-70	107.4	108.1	108.9	109.6	108.5
1970-71	110.2	112.4	113.2	114.6	112.6
1971-72 r	116.5	120.3	120.9	122.0	119.9
1972-73	123.4	125.1	127.5	130.8	126.7

a) Figures after decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

The next table shows, as averages for financial years, the group indexes for Hobart:

Consumer Price Index: Annual Group Index Numbers, Hobart, (a)
(Base of Each Index: Year 1966-67 = 100.0)

Year	Food	Clothing and Drapery	Housing	Household Supplies and Equipment	Miscellan- eous	All Groups
1962-63	88.9	95.2	88.2	97.1	87.6	90.7
1963-64	90.1	95.7	90.9	97.1	88.4	91.7
1964-65	94.0	97.0	94.5	97.6	92.0	94.6
1965-66	98.9	98.0	97.1	98.6	96.7	98.0
1966-67	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	106.8	102.4	103.6	102.9	104.5	104.6
1968-69	105.3	104.5	108.4	104.5	108.0	106.1
1969-70	106.4	107.9	112.6	106.1	111.0	108.5
1970-71	109.6	111.9	117.4	109.2	116.6	112.6
1971-72	112.9	118.5	124.2	116.4	r 129.3	r 119.9
1972-73	120.0	125.6	131.8	120.3	136.6	126.7

(a) Figures after decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

Average Prices of Foodstuffs, Hobart

The average retail prices of selected foodstuffs in Hobart since 1955 are shown in the next table. The list, while representative of foodstuffs commonly consumed, is not exhaustive; for a description of foodstuffs in the Consumer Price Index regimen, see the earlier table 'Consumer Price Index, Composition and Weighting Pattern'.

Average Retail Prices (a): Hobart
Selected Items of Foodstuffs
(Cents)

Article	Unit (a)	1955	1960	1965	1970	1971	1972
Bread (Delivered)	2 lb	12.0	14.2	15.8	21.3	23.5	24.9
Flour (Plain)	"	9.5	11.8	13.7	17.5	17.4	18.0
Tea	$\frac{1}{2}$ lb	36.6	34.2	32.9	30.7	32.0	33.3
Sugar (b)	2 kg	33.0	41.0	41.8	49.0	48.0	48.4
Potatoes	7 lb	41.2	34.5	69.2	44.9	45.9	52.1
Butter (Factory)	1 lb	43.4	46.9	49.6	55.0	56.3	58.0
Eggs (c)	doz	55.8	56.7	61.0	67.7	64.5	67.4
Bacon (Rashers) (d) ..	1 lb	57.4	68.3	89.2	100.9	100.2	103.4
Milk, Bottled, Delivered ..	qt	16.5	17.3	17.8	20.2	21.8	22.0
Beef—							
Rump Steak	1 lb	47.4	65.9	79.4	93.9	100.2	104.6
Corned Silverside ..	"	34.0	44.2	51.6	63.0	65.5	68.0
Mutton—							
Leg	"	23.8	24.9	29.8	26.9	27.3	29.3
Loin Chops	"	18.9	19.0	25.2	23.8	26.0	27.6
Pork, Leg	"	41.8	53.9	61.8	66.8	67.5	68.9

(a) The table units are not necessarily those for which the original price data were obtained (see notes (b) and (d)). In such cases, prices have been calculated for the table unit.

(b) Prices obtained for one pound prior to 1966; for four pound packets from 1966; for 2 kg packets from October 1972.

(c) 'Large' prior to 1964; 'two ounce' eggs from 1964; combinations of 60, 55 and 50 grams weight from July 1972.

(d) Prices obtained for one pound prior to 1966; for half a pound from 1966.

Wholesale Price Indexes

General

The Bureau compiles two wholesale price indexes of basic materials. These are the 'Wholesale Price Index of Materials used in House Building' and the 'Wholesale Price Index of Materials used in Building other than House Building'. Two other indexes, the 'Melbourne Wholesale Price Index' and the 'Wholesale Prices (Basic Materials and Foodstuffs) Index', were compiled for a number of years but have been discontinued.

Wholesale Price Index of Materials Used in House Building

General: This index is complementary to the 'Other than House Building' index and measures the change in prices of selected materials used in house construction. The two building indexes constitute an up-to-date replacement for the 'Building Materials Group' of the now obsolete Wholesale Prices (Basic Materials and Foodstuffs) Index.

Scope and Composition: The materials selected and weights given to the items were in accordance with the usage of materials in a sample of representative house types constructed in or about 1968-69. The house types included in the sample were those using brick, brick veneer, timber or asbestos-cement sheeting for the outer-walls. Within the four major construction types account was taken of a range of characteristics, e.g. material used for internal partitions, window frames, roofs, etc. The number of items included in the index range from 49 (Brisbane) to 51 (Perth). The items are combined into 11 groups; an 'all groups' index is also published. Standards are fixed for items and price movements are for items of a constant quality.

Derivation of Items and Weights: The index is a fixed weight index and is calculated by the method known as the 'weighted arithmetic mean of price relatives'. The items and weights used are based on the reported values of materials used in the selected houses in each State capital city urban area. Information about materials used and their value was obtained for a total of 114 houses. The material values derived for each State capital city were then used to develop weighting patterns for the individual cities and aggregated to give a weighting pattern for the six State capital cities combined. The next table gives the weighting pattern for the Hobart index.

Wholesale Price Index of Materials Used in House Building
Composition and Weighting Pattern: Hobart

Group	Percentage Weight of Group
Concrete Mix, Cement and Sand	7.25
Cement Products	7.01
Clay Bricks, Tiles, etc.	10.14
Timber, Board and Joinery	38.15
Steel Products	7.49
Other Metal Products	7.93
Plumbing Fixtures, etc.	2.74
Electrical Installation Materials	1.61
Installed Appliances.. .. .	6.98
Plaster and Plaster Products	4.99
Miscellaneous Materials	5.71
Total	100.00

Base Period: The index has a base year 1966-67 = 100.0 but the weighting pattern is more appropriate to material usage during 1968-69.

Prices: Prices relate to specified standards for each commodity and are obtained in all State capital city urban areas from representative suppliers of materials used in house building. The prices are collected as at the mid-point of the month to which the index refers.

Index Numbers: The index has been compiled for each month from July 1966 and for financial years from 1966-67. Index numbers are published for each group and combined into an all groups number for each State capital city and the six State capital cities combined.

The following table compares movements in the index numbers for each of the six capital cities and six capitals combined for recent years. (The separate city indexes allow comparisons to be drawn between capital city areas as to differences in the degree of price movement from period to period, but not as to differences in price levels.)

Wholesale Price Index of Materials Used in House Building
All Groups Index Numbers: Six State Capital Cities
 (Base of Each Index: Year 1966-67 = 100.0)

Period	State Capital Cities						Weighted Average of Six State Capital Cities
	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	
1968-69	109.3	103.6	105.6	107.0	105.9	104.1	106.3
1969-70	115.2	107.2	109.4	112.4	110.3	107.7	110.9
1970-71	119.8	112.3	115.2	116.7	113.9	114.3	115.7
1971-72	126.1	118.9	124.8	124.8	121.1	120.7	122.7
1972-73	135.6	126.5	133.8	134.8	126.8	130.8	131.1
1972-73—							
September	129.6	123.0	131.8	130.8	124.5	127.2	127.1
December	134.8	125.0	131.9	133.6	124.8	128.5	129.7
March	139.3	128.3	136.4	137.7	128.9	133.8	133.7
June	144.9	134.7	139.5	141.9	132.6	136.1	138.8

Index numbers for the Hobart capital city urban area for each group of items are given in the next table:

Wholesale Price Index of Materials Used in House Building
Group Index Numbers: Hobart
 (Base of Each Index: Year 1966-67 = 100.0)

Period	Concrete Mix, Cement and Sand	Cement Products	Clay Bricks, Tiles, etc.	Timber, Board and Joinery	Steel Products	Other Metal Products
1968-69	108.0	105.3	109.6	102.8	104.0	102.5
1969-70	109.1	110.4	111.7	105.4	110.4	108.3
1970-71	116.0	114.6	120.6	113.9	116.5	113.7
1971-72	123.6	124.2	123.8	120.3	129.2	117.1
1972-73	130.7	137.2	140.2	134.6	135.9	118.1
1971-72—						
September	120.8	119.7	120.8	119.2	126.4	116.4
December	120.8	123.1	121.9	119.7	127.9	117.1
March	129.4	125.8	126.1	120.0	133.1	117.1
June	129.5	136.1	130.9	127.0	133.7	117.5
1972-73—						
September	129.5	137.3	131.1	129.3	133.8	116.7
December	129.5	137.3	141.5	129.4	134.7	117.5
March	130.8	137.3	147.2	139.9	136.6	118.2
June	138.8	137.4	149.9	141.6	141.5	121.4

Wholesale Price Index of Materials Used in House Building

Group Index Numbers: Hobart—continued

(Base of Each Index: Year 1966-67 = 100.0)

Period	Plumbing Fixtures, etc.	Electrical Installation Materials	Installed Appliances	Plaster and Plaster Products	Miscellan- eous Materials	All Groups
1968-69	104.5	105.9	99.9	104.6	103.1	104.1
1969-70	115.8	118.2	100.9	105.3	110.0	107.7
1970-71	123.8	115.9	102.5	108.1	115.5	114.3
1971-72	132.8	120.9	105.8	113.5	123.3	120.7
1972-73	136.8	126.0	107.6	114.2	132.5	130.8
1971-72—						
September	128.8	119.0	106.3	111.5	121.3	118.9
December	134.2	121.0	105.2	114.1	123.3	120.0
March	134.4	121.0	106.5	114.1	123.9	121.9
June	139.7	123.9	107.2	114.2	127.9	126.3
1972-73—						
September	133.1	124.5	107.2	114.2	130.0	127.2
December	136.6	124.5	107.2	114.2	131.1	128.5
March	137.2	124.5	107.9	114.2	135.7	133.8
June	138.0	131.3	108.4	114.5	135.7	136.1

Wholesale Price Index of Materials Used in Building Other Than House Building

General: This was the first of a series of indexes designed to replace the obsolete Wholesale Price (Basic Materials and Foodstuffs) Index. The index measures changes in the prices of selected materials used in the construction of buildings other than houses and 'low-rise' flats (in general, those up to three storeys).

Scope and Composition: Composition of the index is in accordance with actual material usage in building projects which were selected as being representative for purposes of determining weighting patterns. Completed values of the types of buildings selected constituted 86 per cent of all completed new buildings other than houses and low-rise flats in the period 1964-65 to 1966-67. Buildings for entertainment, recreation and religious purposes together with buildings in the building statistics category 'miscellaneous buildings' are not directly represented.

The index comprises 72 items combined into 11 groups. Items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality. The group weighting pattern is given in the next table:

Wholesale Price Index of Materials Used in Building Other Than House Building
Composition and Weighting Pattern

Group	Percentage Weight of Group
Concrete Mix, Cement, Sand, etc.	10.41
Cement Products	3.64
Bricks, Stone, etc.	5.28
Timber, Board and Joinery	11.90
Steel and Iron Products	30.58
Aluminium Products	6.01
Other Metal Products	2.59
Plumbing Fixtures	1.19
Miscellaneous Materials	7.09
Electrical Installation Materials	8.61
Mechanical Services Components	12.70
Total	100.00

Base Period: The reference base of the index is the year 1966-67 = 100.0. The index is a fixed-weights index and is calculated by the method known as the 'weighted arithmetic mean of price relatives'.

Prices: Price series used relate to specified standards of each commodity and are obtained in all State capital city urban areas from representative suppliers of materials used in building. In the main they are collected as at the mid-point of the month to which the index refers, or as near thereto as practicable. There are some exceptions to the use of local prices in the indexes for each capital city area. In a few cases where suitable price series are not currently available for an item in a given city, imputation is necessary. For each capital city area, the whole of the group 'Electrical Installation Materials' and the majority of the items in the group 'Mechanical Services Components' are based on Sydney and Melbourne price series.

Index Numbers: The index has been compiled for each month from July 1966, and for financial years from 1966-67.

The separate city indexes measure price movements within each metropolitan area individually. They enable comparisons to be drawn between metropolitan areas as to differences in degree of price movement from period to period, but not as to differences in price level.

The following table compares movements in the index numbers for each of the six capital cities and the six capitals combined:

Wholesale Price Index of Materials Used in Building Other Than House Building
All Groups Index Numbers: Six State Capital Cities
(Base of Each Index: Year 1966-67 = 100.0)

Period	State Capital Cities						Weighted Average of Six State Capital Cities
	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	
1968-69	106.5	105.0	105.1	105.0	104.7	105.1	105.6
1969-70	111.7	109.8	110.3	109.4	108.9	109.7	110.5
1970-71	116.4	115.1	116.4	113.9	113.3	115.0	115.5
1971-72	122.4	123.9	124.4	122.7	121.3	122.6	123.0
1972-73	127.2	131.2	130.4	129.8	126.3	129.7	128.9
1970-71—							
September	114.4	112.4	114.5	111.4	111.0	112.9	113.3
December	114.5	113.5	115.2	112.4	112.5	114.2	114.0
March	118.4	117.6	118.7	116.0	115.0	117.2	117.7
June	120.1	119.6	119.8	118.4	116.9	118.2	119.4
1971-72—							
September	122.1	122.3	122.5	121.0	119.9	121.1	121.9
December	122.5	123.1	123.6	122.7	121.1	122.0	122.7
March	123.1	125.2	126.6	123.9	122.3	124.3	124.2
June	123.3	127.4	127.4	125.8	123.7	126.5	125.3
1972-73—							
September	124.1	128.6	127.9	126.9	124.1	127.4	126.1
December	126.1	130.2	128.7	128.7	124.9	128.2	127.8
March	129.3	132.6	132.8	131.6	128.1	130.6	130.8
June	133.3	137.3	136.9	135.3	131.0	134.9	134.9

Index numbers for the Hobart urban area for each group of items are given in the following table:

Wholesale Price Index of Materials Used in Building Other Than House Building
Group Index Numbers: Hobart
(Base of Each Index: Year 1966-67 = 100.0)

Period	Concrete Mix, Cement, Sand, etc.	Cement Products	Bricks, Stone, etc.	Timber, Board and Joinery	Steel and Iron Products	Aluminium Products
1968-69	108.0	103.8	108.5	103.8	105.5	99.6
1969-70	109.1	107.1	111.3	108.9	109.8	100.9
1970-71	116.0	112.8	118.3	116.6	114.6	106.6
1971-72	123.4	123.7	118.3	122.2	126.4	110.8
1972-73	130.3	138.4	130.1	134.3	133.6	111.8
1970-71—						
September	111.8	110.2	118.5	113.0	113.0	101.1
December	117.8	112.0	120.1	115.1	113.3	106.1
March	118.6	116.3	120.7	120.2	116.0	112.6
June	118.7	117.0	115.5	120.6	119.1	110.0
1971-72—						
September	120.7	117.4	116.5	121.1	124.8	110.0
December	120.7	120.3	118.4	122.0	125.6	111.0
March	129.0	127.5	118.4	122.2	129.7	111.0
June	129.2	137.8	124.2	127.7	129.8	111.4
1972-73—						
September	129.2	138.4	125.0	129.7	131.6	111.4
December	129.2	138.4	126.6	130.2	131.9	111.4
March	130.2	138.4	134.1	138.1	133.8	111.9
June	137.9	138.6	139.1	140.8	139.7	112.9

Wholesale Price Index of Materials Used in Building Other Than House Building
Group Index Numbers: Hobart—continued
(Base of Each Index: Year 1966-67 = 100.0)

Period	Other Metal Products	Plumbing Fixtures	Miscellan- eous Materials	Electrical Installation Materials (a)	Mechanical Services Component- s (a)	All Groups
1968-69	103.1	105.5	103.0	102.1	107.7	105.1
1969-70	122.3	114.0	107.5	112.2	111.8	109.7
1970-71	125.3	122.7	111.6	110.9	118.9	115.0
1971-72	126.0	135.1	115.8	114.7	127.5	122.6
1972-73	126.7	142.9	120.2	120.5	132.1	129.7
1970-71—						
September	125.0	120.8	110.7	111.5	116.6	112.9
December	123.2	121.6	110.9	109.4	116.9	114.2
March	125.9	125.5	111.8	110.6	121.8	117.2
June	126.8	127.5	114.7	111.6	122.7	118.2
1971-72—						
September	125.9	130.2	115.2	114.2	126.5	121.1
December	125.9	137.0	115.9	114.2	128.0	122.0
March	125.9	137.0	115.3	115.4	128.5	124.3
June	124.7	144.9	116.8	117.2	129.5	126.4
1972-73—						
September	124.3	140.7	117.8	117.8	130.7	127.4
December	124.3	142.3	119.9	119.4	132.3	128.2
March	126.3	143.1	122.4	121.0	132.0	130.6
June	134.3	144.8	123.3	125.7	134.7	134.9

(a) The whole of the group 'Electrical Installation Materials' and the majority of items in the group 'Mechanical Services Components' are based on Melbourne and Sydney price series.

Australian Export Price Index

This index has fixed-weights, its purpose being to provide monthly comparisons over a limited number of years of the level of export prices of the selected items, making no allowance for variations in quantities exported. The index numbers are thus measures of price change only. The price series used in the index relate to specific standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc. For some commodities, price movements in the predominant market, or markets, are used, while for other commodities average realisations in all export markets are used. As nearly as possible, prices used are on the basis f.o.b. at the main Australian ports of export.

At present a comprehensive review of the composition and weighting of the index is being undertaken. An interim series, using weights based on the values of 1969-70 exports has been published from June 1969. The interim series contains four new items (iron ore, bauxite, alumina and mineral sands) which have been incorporated in the all groups index. In the next table index numbers for 1969-70 and later are not strictly comparable with those for the previous year.

Export Price Index Numbers: Australia
(Base of Each Index: Year 1959-60 = 100)

Period	Wool	Meats	Dairy Pro- duce	Cereals	Dried and Canned Fruits	Sugar	Hides and Tallow	Metals and Coal	Gold	All Groups
1968-69 ..	99	131	72	104	97	72	73	123	117	102
1969-70 (a) ..	87	148	73	96	99	93	94	143	109	(b) 103
1970-71 ..	67	152	88	100	102	113	94	139	109	101
1971-72 ..	72	147	135	99	103	127	96	138	126	104
1972-73 ..	179	178	119	102	106	136	139	142	180	134
1972-73—										
September ..	120	161	126	98	100	135	132	139	184	118
December ..	166	168	119	105	100	144	152	138	172	131
March ..	269	197	111	114	98	125	136	144	190	157
June ..	233	203	115	99	144	128	148	155	243	151

(a) Break in continuity due to re-weighting of the items and inclusion of some additional items.

(b) In addition to the specified groups, from July 1969 the 'All Groups Index' includes iron ore, bauxite, alumina and mineral sands.

WAGES

Basic Wage in Tasmania

General

The present position is as follows: wages fixed by Tasmanian State Wages Boards still consist of two parts, namely a *basic wage* and a *margin*; wages fixed by the Commonwealth Conciliation and Arbitration Commission are expressed as a *total wage*, the basic wage concept having been abolished in Commonwealth awards in 1967. All State industrial authorities with the exception of Victoria's have also retained the basic wage concept. A fuller history of the basic wage can be found in the 1970 *Year Book*.

Male Basic Wage Rates from 1953

The following table has been compiled to show the Commonwealth basic wage rates operating in Australian capital cities before the decision of 5 June 1967 (when the basic wage concept was eliminated from Commonwealth awards):

Commonwealth Basic Wage: Weekly Rates, Adult Males
(£)

Date Operative (a)	Sydney	Mel-bourne	Brisbane	Adelaide	Perth	Hobart	Six Capital Cities
August 1953	24.30	23.50	21.80	23.10	23.60	24.20	23.60
June 1956	25.30	24.50	22.80	24.10	24.60	25.20	24.60
15 May 1957	26.30	25.50	23.80	25.10	25.60	26.20	25.60
21 May 1958	26.80	26.00	24.30	25.60	26.10	26.70	26.10
11 June 1959	28.30	27.50	25.80	27.10	27.60	28.20	27.60
7 July 1961	29.50	28.70	27.00	28.30	28.80	29.40	28.80
19 June 1964	31.50	30.70	29.00	30.30	30.80	31.40	30.80
11 July 1966	33.50	32.70	31.00	32.30	32.80	33.40	32.80

(a) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown.

Female Basic Wage Rates from 1953

The following table summarises the Commonwealth basic wage applicable to females from 1953. Prior to 1950, female basic wage rates had been approximately 54 to 56 per cent of male rates but the Court of Conciliation and Arbitration in its judgment in December of that year fixed the relativity at 75 per cent which was maintained until the elimination of the Commonwealth basic wage in 1967.

Commonwealth Basic Wage Rate, Hobart: Adult Females
(£)

Date Operative (a)	Weekly Rate	Date Operative (a)	Weekly Rate	Date Operative (a)	Weekly Rate
August 1953	18.15	21 May 1958 ..	20.00	19 June 1964 ..	23.55
June 1956	18.90	11 June 1959 ..	21.15	11 July 1966 ..	25.05
15 May 1957	19.65	7 July 1961 ..	22.05	5 June 1967 ..	(b)

(a) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown.

(b) Abolition of Federal basic wage; see later section headed 'Equal Pay Legislation'.

State Basic Wage Rates

The following table shows the awards and determinations made by State industrial authorities after the basic wage was abolished in Commonwealth awards in June 1967:

State Basic Wage Rates Prior To and After Abolition of Commonwealth Basic Wage
(£)

Date of Operation (a)	Adult Males	Adult Females	Date of Operation (a)	Adult Males	Adult Females
TASMANIAN BASIC WAGE: HOBART					
1966 11 July	33.40	25.05	1971 1 January ..	39.00	29.90
1967 1 July	34.40	26.05	1972 19 May	41.00	31.90
1968 25 October ..	35.75	27.40	1973 29 May	43.50	34.40
1969 19 December ..	36.80	28.20			
NEW SOUTH WALES BASIC WAGE: SYDNEY					
1966 11 July	33.50	25.10	1969 19 December	36.90	28.30
1967 1 July	(b)	(b)	1971 1 January ..	39.10	30.00
1968 1 January ..	34.50	26.10	1972 19 May	41.10	32.00
1968 25 October ..	35.85	27.45	1973 29 May	44.40	35.10

State Basic Wage Rates Prior To and After Abolition of Commonwealth Basic Wage—continued
(\\$)

Date of Operation (a)	Adult Males	Adult Females	Date of Operation (a)	Adult Males	Adult Females
QUEENSLAND BASIC WAGE: BRISBANE					
1966 23 May ..	32.70	24.55	1969 22 December	36.65	28.05
1967 10 April ..	33.20	24.90	1971 4 January ..	38.85	29.75
1967 3 July ..	(b)	(b)	1972 29 May ..	41.00	31.85
1968 28 October ..	35.55	27.25	1973 29 May ..	44.20	34.90
SOUTH AUSTRALIAN LIVING WAGE: ADELAIDE					
1966 11 July ..	32.30	24.20	1971 4 January ..	37.85	29.00
1967 3 July ..	33.30	25.20	1972 19 May ..	39.85	31.00
1968 28 October ..	34.65	26.55	1973 29 May ..	43.15	34.10
1969 22 December ..	(b)	(b)			
WESTERN AUSTRALIAN BASIC WAGE: PERTH					
1966 2 August ..	33.26	24.95	1969 24 November	36.45	27.88
1966 24 October ..	33.50	25.13	1970 26 October ..	38.45	29.40
1967 1 July ..	(b)	(b)	1972 26 June ..	40.45	32.40
1968 25 October ..	(b)	(b)	1973 8 June ..	44.00	36.00
1968 22 November ..	35.45	27.08			
VICTORIAN BASIC WAGE: MELBOURNE					
1966 11 July ..	32.70	24.50	1967 1 July ..	(c)	(c)

(a) Rates operative from the first pay-period commencing on or after the date shown.

(b) Special loadings (N.S.W., \$1; Qld, \$1; S.A., 3 per cent; W.A., \$0.60 from 1.7.67 and a further \$1.35 from 25.10.68) were added to award rates but later absorbed into the basic wage.

(c) Basic wage and margins deleted from determinations; subsequently rates expressed as total wages.

Minimum Wages

The Commonwealth Conciliation and Arbitration Commission announced in its decision of 8 July 1966 that it intended to grant relief to low wage earners by inserting a provision prescribing a minimum wage. It ordered that the minimum male wage paid under the Metal Trades Award should be the appropriate basic wage plus \$3.75 a week (e.g. in Tasmania a basic wage of \$33.40 plus \$3.75 giving a minimum wage of \$37.15).

Tasmanian Wages Boards introduced the concept of the minimum wage into their determinations in June 1967. Weekly minimum wage rates prescribed in Commonwealth and State awards are shown in the following table:

Minimum Wages, Adult Males: Commonwealth Commission and Tasmanian State Wages Boards
(\\$)

Date Operative (a)	Commonwealth Awards	Tasmanian State Wages Boards Determinations
11 July 1966 ..	37.15	..
1 July 1967 ..	38.15	38.15
25 October 1968 ..	39.50	40.45
19 December 1969 ..	43.00	43.00
1 January 1971 ..	47.00	47.00
19 May 1972 ..	51.70	51.70
29 May 1973 ..	60.70	60.70

(a) Rates operative from the first pay-period commencing on or after the date shown.

Wage Margins in Tasmania

General

Wage margins have been defined as 'minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether these features are the skill or experience required for the performance of that work, its particularly labourious nature, or the disabilities attached to its performance' (*Commonwealth Arbitration Report*, Vol. 80).

Marginal rates of wages were determined both by Commonwealth and State industrial tribunals (in Tasmania, by State Wages Boards) before an award of the Commonwealth Conciliation and Arbitration Commission in June 1967 introduced a new industrial concept, *the total wage*, in Commonwealth awards. In the Commonwealth jurisdiction, prior to 1954, the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunciated by the Court in the Engineers' Case of 1924, the Merchant Service Guild Case of 1942 and the Printing Trades Case of 1947. Major determinations affecting margins were made in the Commonwealth jurisdiction in 1954, 1959, 1963 and 1965 (the 1965 hearing resulted in a determination affecting margins generally even though conceived originally by the claimant trade unions as concerned purely with basic wage issues). The decisions of the Commonwealth Court (and later of the Commonwealth Conciliation and Arbitration Commission) have generally been followed by State industrial tribunals in the determination of margins in State awards. The Tasmanian State Wages Boards have undoubtedly been influenced in their margins determinations by those made in the Commonwealth jurisdiction, although an independent policy has sometimes been pursued (e.g. special 15 per cent marginal increases for certain tradesmen in the State sphere in 1963, as opposed to 10 per cent increases granted in the Commonwealth jurisdiction).

Margins were eliminated from Federal awards with the introduction of the *total wage concept* in June 1967. (For a summary of major margin cases see the 1968, 1969 and 1970 *Year Books*.)

Metal Trades Work Value Award

Decision of December 1967

Following the December 1966 margins determination, the Commonwealth Conciliation and Arbitration Commission announced its intention to undertake a work value enquiry concerning classifications under the Metal Trades Award in order to place a value on the type of work performed by workers in each individual classification. On 11 December 1967 the decision was handed down and tradesmen in certain classifications received substantial increases. However, unlike cases argued on economic grounds this determination *did not* create a precedent capable of general application to tradesmen in other fields; to obtain increases they had to present their own work value cases.

For a more detailed account of the 1967 decision and subsequent events associated with the December determination see the 1970, 1971 and 1972 *Year Books*.

Recent State Wages Boards Margin Reviews

Review of Margins 1972

At the 1972 'informal test case' it was argued that an adjustment to tradesmen's margins was necessary to restore the position established after the 1970 tradesmen's margin review decision. The Chairman agreed in principle and his determination of 5 May increased the margins for 'base tradesmen', under the jurisdiction of the Electrical Engineers' Wages Board, by 22½ per cent. In the case of an electrical mechanic this meant an increase of \$6.20 per week with proportionate increases for more highly skilled tradesmen. No increase was granted to unskilled and semi-skilled trades. The increases became effective from the first pay-period commencing on or after 1 May 1972.

Review of Margins 1973

Test Case: A meeting of the Building Trades' Wages Board was convened in June 1973 to consider claims made by various employee organisations in support of margin increases of \$20.00 per week for tradesmen.

Argument: Employee representatives based their claims on comparisons of wages paid between tradesmen and non-tradesmen, increased skills required by tradesmen and the fact that many tradesmen were leaving their trades in order to engage in higher paid occupations. It was also claimed that due to the erosion of margins the attraction of trades to potential apprentices was being reduced.

The employers opposed the claims on economic grounds and the fact that no change in work value was apparent. Employers also claimed that the granting of the claims would conflict with the standards prescribed in principal Federal Awards. In addition concern was expressed that productivity would not increase correspondingly with increased margins.

Determination: The Chairman indicated that problems, not previously apparent, were of significance in attempting to determine an equitable margin for base tradesmen in 1973. These problems, in particular, took the form of substantial wage increases awarded to employees in a wide range of industries. The Chairman also stated that the incidence of over-award payments in Tasmania was lower than in any other State and partly attributed the recent increase in industrial unrest to this factor. He indicated that employers should bear this in mind when negotiating in future with employees. The concept of awarding a fixed amount to all classifications was rejected by the Chairman on the grounds that it was not an equitable means of distributing wage justice.

An increase of 20 per cent in margins was awarded to all tradesmen classified under the Building Trades' Wages Board Determination. The increases became effective from the first pay-period commencing on or after 20 June 1973. The decision was also applied to margins in determinations of other Wages Boards.

Total Wage Concept

For a full account of events leading to the adoption of a 'total wage' concept see the 1970 *Year Book*. The decision, abolishing the basic wage in awards of the Commonwealth Conciliation and Arbitration Commission, was handed down in June 1967 when a \$1.00 increase was awarded, to be added to the *total wage*. Results of recent national wage cases follow:

- 1969** The Commission's award provided for a three per cent increase in total award rates.
- 1970** The Commission granted a uniform six per cent increase in the total wage and increased the minimum wage by \$4.00 per week, operative from first pay-period commencing on or after 1 January 1971.
- 1972** The Commission increased the total wage by \$2.00 per week and raised the minimum wage by \$4.70 per week.
- 1973** The Commission's 1973 award is described in the next section.

National Wage Case 1972-73

The Commonwealth Conciliation and Arbitration Commission was convened in October 1972 to hear the national wage case jointly with an equal-pay test case. Various trade union representatives requested increases in the minimum wage, an equal minimum wage for adult females and increases in the total wage; some on a flat amount basis, and others on varying percentage increase basis. On 15 December 1972 the Commission handed down its decision. The Commission indicated that there were no exceptional or unexpected circumstances evident to justify altering the 1972 national wage decision before the expiration of its intended term and it also rejected the concept of an equal minimum wage for adult females; the reason given by the Commission was that the minimum wage included a family component. A new principle of equal pay in determining female rates was handed down (see section on equal pay). All other claims were adjourned until 13 March 1973. The hearing re-commenced on this date and the Commission handed down its decision on 8 May 1973.

The Claims: At the adjourned hearing additional information in support of claims was put forward by the unions. Three separate claims were put forward; one by the 'blue collar unions' and two by 'white collar unions'. The 'blue collar unions', represented by a number of Metal Trades Unions, sought: (i) addition of an amount of \$11.50 per week to the total wage for all adults; (ii) a minimum wage of \$65.00 per week for adult males; and (iii) quarterly adjustments of the minimum wage in accordance with movements in the Consumer Price Index. One 'white collar' group applied for an increase of 10 per cent in the total wage plus a flat amount of \$2.90 per week while the other requested a 7.5 per cent increase in the total wage.

Employees' Case: The trade unions based their claims, once again, on price and productivity increases. A flat amount increase was favoured, the argument being that since the introduction of the total wage a dramatic increase had occurred between the wages of lower paid workers and higher paid workers; a flat amount was the most effective way of increasing the purchasing power of those at greatest disadvantage. As in the previous national wage case, the 'white collar' unions favoured a percentage increase to preserve the advantages of higher skilled employees.

Employers' Case: The Commonwealth in its submissions indicated that a substantial rise in wages was justified, emphasised its role as the arbiter of economic policy and indicated its responsibility to take into account the effects of any decision made by the Commission: 'It is the Commonwealth's opinion that there is scope in the capacity and the flexibility of the Australian economy for an appreciable increase in wages without undesirable inflationary consequences.' The Commonwealth also put forward the view that any rise in the total wage should be a flat increase, as a percentage increase would have the effect of placing at a disadvantage those workers who depend solely on national wage cases for increases. Private employers opposed all claims made to the Commission on the grounds that inflationary trends would be aggravated and that the unions had no new evidence in order to justify any increase in wages.

Commission's Views: The Commission stated that, in view of the evidence submitted by the unions, private employers and the Commonwealth, it was convinced that the national wage case should continue to be decided by adopting the customary approach as in previous years. The Commission was of the opinion that a significant increase in the national wage case was justified due to (i) '... a lower than normal increase in Commonwealth award rates ...' and (ii) '... the anticipated better than normal national productivity gain in the recovery stage of the economic cycle ...' in conjunction with the fact that opposition was not expressed to the national distribution of economic increases as a matter of principle. The Commission also regarded the substantial flat increase awarded in the minimum wage as a test case regarding the degree of acceptance of such increases weighted in favour of lower paid employees. Whilst a flat increase was not considered to be suitable for the entire award structure, it was held that a combination increase would be more appropriate. The Commission said, 'We make it clear that we have not adopted any mathematical or conceptual formula of productivity and prices but have exercised broad judgment consistent with our evaluation of the social, industrial and economic consequences of our actions.'

The Award: The combination increase in the total award rates consisted of a 2 per cent increase to which was added \$2.50 as a flat increase, applying to both adult males and females. The minimum wage was increased by \$9.00. These increases became effective from the first pay-period commencing on or after 29 May 1973. Quarterly adjustment of the minimum wage was rejected.

Total Wage Concept in Tasmania

The Commonwealth award of June 1967 was followed by a test case argued before the Chairman of the State Wages Boards. The employers asked for adoption of the total wage concept. The unions opposed this and argued for a \$7.30 increase in the basic wage; if a lesser amount was determined, then a *minimum total wage* of \$40.70 should nevertheless be fixed.

The decision in the test case (Electrical Trades) was that both male and female rates should be increased by \$1; the increase, however, should be regarded as *raising the basic wage* which would be retained for the present in State determinations. The State Wages Boards have retained the basic wage and margins concepts in awards handed down following subsequent national wage case determinations of the Commonwealth Conciliation and Arbitration Commission.

State Wages Boards Decision, 1973: A meeting of all wages boards was convened to determine variations to the State basic wage and minimum wage following the May 1973 National Wage Case. Representatives from the Tasmanian Employers' Federation and Tasmanian Trades and Labour Council appeared at the hearing, which was held under the 'common rule' provisions of the *Wages Boards Act*. The determination increased: (i) the basic wage for adult males and females by \$2.50 to \$43.50 (males) and \$34.40 (females); (ii) the minimum wage for adult males by \$9.00 to \$60.70.

Equal Pay Legislation

Introduction

The concept of 'equal pay' achieved partial recognition in some Australian States because there exist occupations in which men and women perform work which is identical (e.g. teaching, medical practice, etc.); such identity has given rise to industrial claims based on the principle of 'equal pay for equal work'. The logic of such occupational situations was ignored in the past and it was only in 1950 that the Commonwealth Court of Conciliation and Arbitration fixed the female basic wage at 75 per cent of the male rate (it had previously been as low as 54 or 56 per cent). With regard to margins, there was no universal rule but, in the Commonwealth Public Service, for example, certain female employees received the same margin as males, but only the female basic wage.

N.S.W. Legislation (1959)

The first acceptance of the principle of equal pay for equal work came in N.S.W. in 1959 when the Industrial Arbitration Act was amended to provide equal pay for males and females under certain circumstances. If the Industrial Commission or a Conciliation Committee was satisfied that male and female employees under an award were performing identical work, it was to prescribe the same margin for males and females. The basic wage was to be adjusted to equal the male rate in annual five per cent increments spread over the period 1959-1963.

Tasmanian Legislation (1966)

In Tasmania the approach to the problem was different in that the Parliament in 1966 passed legislation affecting only employees in the public sector. The *Public Service (Equal Pay) Act* 1966 applied to those employed by the State Government or employed by State authorities, e.g. the teaching service, the police force, the railway service, etc. The Act required that wage-fixing authorities had to be satisfied in any application, that certain female employees were performing 'work of the same or a like nature and of equal value'. If this was established, then the authority was required to fix the same margins for all employees, irrespective of sex. This still did not give equal pay due to the lower female basic wage. Accordingly the Act provided for annual five per cent increments in the female basic wage which would effect equality with the male rate by 1972.

The wage-fixing authorities specified in the Act include Wages Boards, the Public Service Tribunal, the Public Service Commissioner and any other person or body required to act as such by law. In actual practice, the majority of claims for an award variation were made to the Public Service Tribunal, who was the principal wage-fixing authority for employees in the public sector.

National Wage Cases

In awarding the \$1 increase to both males and females in 1967, the Commonwealth Conciliation and Arbitration Commission departed from the principle of maintaining a 75 per cent ratio between the male and female basic wage. This was done deliberately and the Commission's pronouncement in June 1967 referred to the eventual possibility of equal pay for equal work. In all subsequent national wage cases the Commission has granted uniform quantum or percentage increases to males and females.

Teachers' Case, 1968

In June 1968 the Public Service Tribunal ruled that Tasmanian women teachers employed by the State were performing work of the same or a like nature and of equal value. Generally women teachers were already receiving the same margins as men so the effect of the Tribunal's decision was to increase the base rate component of their salary to 80 per cent of the male base rate, with effect from 23 May 1968. (The female base rate, \$25.05, was 75 per cent of the male base rate, \$33.40.) In accordance with the Act, the base rate for females was steadily advanced until it equalled the male rate in 1972.

State Employees Receiving Equal Pay

Since the June 1968 Teachers' determination, equal pay has been extended to all areas where the Public Service Tribunal has been satisfied that the work performed by male and female employees is of the same or similar nature and of equal value.

National Equal Pay Case 1969

Two benches of the Conciliation and Arbitration Commission handed down a joint decision on the National Equal Pay Case on 19 June 1969. The decision was important as, for the first time, the Commission accepted in principle the concept of 'equal pay for equal work'. However, equal pay was not to be granted automatically; equality of work had to be proved before an increase was granted to female workers.

Conclusions: Acceptance of the concept of 'equal pay for equal work', implied the elimination of discrimination based on sex alone. However, before equal pay was granted equality of work had to be established.

Principles to be Applied: The Commission stated that it would be necessary for a separate examination to be made of each determination and award in respect of the awarding of equal pay, and suggested that certain clearly defined principles should be applied in deciding these applications.

Where the Arbitrator or the Commissioner was satisfied that equal pay should be awarded, the Commission considered that the implementation of such a decision should be on a progressive basis over four years as follows (provided that no female rates should be reduced by operation of this formula):

Equal Pay Case Decision, 19 June 1969

Date of Operation	Amount of Female Rate
Beginning of First Pay-period to Commence On or After—	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> 85% 90% 95% 100% </div> <div style="font-size: 3em; line-height: 1;">}</div> <div>of the male rate at that date</div> </div>
1 October 1969	
1 January 1970	
1 January 1971	
1 January 1972	

Equal Pay: Metal Trades Award

In February 1970 the Commonwealth Conciliation and Arbitration Commission granted equal pay to adult female process workers employed under the Commonwealth Metal Trades Award. The determination was that rates for adult females were set at: (i) from first pay-period commencing on or after 23 February 1970, 90 per cent of male rates; (ii) from 1 January 1971, 95 per cent of male rates; (iii) from 1 January 1972, the same as male rates. On 25 March 1970 the equal pay provisions were extended to include junior females.

National Wage and Equal Pay Case 1972

On 15 December 1972 the Commonwealth Conciliation and Arbitration Commission enunciated a new principle in its National Wage and Equal Pay Case decision, of 'equal pay for work of equal value' to be used when determining female wage rates. The adoption of the new principle, to be applied to both adult and junior female wage awards, requires that female rates be determined by work value comparisons without regard to the sex of the employees concerned. The principle may be applied by either agreement or arbitration.

Weekly Wage Rates in Tasmania

Definitions

In this section, 'weekly wage rates' is used as a short title for '*weighted average minimum weekly wage rates*'. The rates are those applicable to adult males and adult females, and are those fixed in *awards*.

The minimum wage is the lowest rate payable for a particular occupation. This minimum rate may be expressed as: (i) a total wage (e.g. in awards of the Commonwealth Conciliation and Arbitration Commission; (ii) a basic wage plus secondary wage payments, i.e. additional amounts for skills, loadings, etc. (e.g. in awards of State wage-fixing authorities except Victoria); or (iii) in agreements registered with Commonwealth or State wage-fixing authorities. The introduction of varying Commonwealth and State practices relating to 'total' and 'basic' wages from time to time has not affected the continuity of the statistical series.

Weighting: To arrive at a weighted average rate for a particular field (e.g. rate for occupations in Tasmania covered by Commonwealth awards) certain data are required. The basic initial information is the award rate applying to each occupation and its relative significance (broadly, the numbers in each occupation). The calculation of average minimum rates is based on the occupational structure existing in 1954.

The individual minimum wage rates, combined to give the averages shown in the tables, are those for representative occupations within each industry.

Since the aim is to measure movements in prescribed minimum rates of 'wages' as distinct from 'salaries', those awards, etc. which relate solely or mainly to salary-earners are excluded.

Weighted averages of the components of the total minimum weekly wage rate, i.e. basic wage, margin and loading, are calculated separately for adult male employees covered by Commonwealth awards, etc. and for those covered by State awards, etc.

'Commonwealth Awards, etc.': These include awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission, and determinations of the Commonwealth Public Service Arbitrator.

'State Awards, etc.': These include awards or determinations of, or agreements registered with, State industrial tribunals, together with certain unregistered agreements, where these are dominant in the particular industries to which they refer. (In Tasmania the principal tribunals are the State Wages Boards.)

'Basic Wage Rates': These are weighted averages of the weekly rates prescribed in awards, etc. for the occupations included in the calculation. For industries other than mining, metropolitan basic wage rates have generally been used. However, there are a number of occupations for which basic wage rates other than the metropolitan rate are prescribed. In all such cases, the basic wage rate actually paid is used in the tables. As a result, the weighted average basic wage shown in this section differs from the Hobart basic wage appearing elsewhere.

'Margins': These are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for special features such as skill, experience, arduousness or other like factors.

'Loadings': These include industry loadings and other general loadings prescribed in awards, etc. for the occupations included in the calculation. Loadings that are not applicable to all workers in a specified award occupation (for example, those payable because of length of service; working in wet, dirty or confined spaces, etc.) are not included in the calculation.

Male and Female Rates

The following table summarises weekly wage rates for adult males and adult females in Tasmania from 1956 onwards. The averages include Commonwealth and State awards, etc. and are for all industry groups combined.

Weighted Average Minimum Weekly Wage Rates (a)
Adult Males and Adult Females: All Groups
(\$)

End of December—	Adult Rate		End of December—	Adult Rate	
	Male	Female		Male	Female
1957	31.85	21.90	1965.. .. .	40.73	27.94
1958	32.36	22.12	1966.. .. .	43.27	29.80
1959	34.71	23.42	1967.. .. .	45.31	31.62
1960	35.15	23.88	1968.. .. .	48.98	33.46
1961	36.27	24.82	1969.. .. .	52.00	36.94
1962	36.48	24.83	1970.. .. .	r 54.49	38.17
1963	37.29	25.21	1971.. .. .	r 60.82	r 44.35
1964	39.69	27.04	1972.. .. .	65.81	48.94

(a) Weighted average minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations, etc.

Limitation: The wage rates shown in the tables in this section should not be regarded as actual current averages, but rather as indexes expressed in money terms, indicative of trends. The wage rates do not measure the relative level of minimum wages as between States.

Minimum weekly wage rates for adult males are not comparable with 'average weekly earnings per employed male unit' appearing in a later section of this Chapter; the latter includes not only the earnings of adult wage-earners but also those of salaried employees, junior wage-earners and part-time and casual employees; included also are over-award payments and overtime earnings.

Rates in Industry Groups

Tasmanian details by industry group are given in the next table:

Weighted Average Minimum Weekly Wage Rates and Index Numbers
Adult Males and Adult Females: Industry Groups, 31 December 1972

Industry Group	Adult Males		Adult Females	
	Rates of Wage (\$)	Index Numbers (a)	Rates of Wage (\$)	Index Numbers (a)
Mining and Quarrying	75.58	260.5	..	..
Manufacturing—				
Engineering, Metals, Vehicles, etc.	66.65	236.0	51.69	259.7
Textiles, Clothing and Footwear	60.00	212.4	43.83	220.2
Food, Drink and Tobacco	61.06	216.2	45.10	226.5
Sawmilling, Furniture, etc.	59.07	209.1	39.92	200.5
Paper, Printing, etc.	64.31	227.7	47.75	239.9
Other Manufacturing	59.90	212.1	..	..
All Manufacturing Groups	63.01	223.1	45.80	227.5
Building and Construction	65.42	231.6	..	..
Railway Services	65.66	232.5	62.97	316.3
Road and Air Transport	66.35	235.0	..	..
Shipping and Stevedoring	71.69	253.8	..	..
Communication	84.80	300.3	63.87	320.8
Wholesale and Retail Trade	65.35	231.4	50.25	252.4
Public Authority (n.e.i.) and Community and Business Services	68.49	242.5	55.92	280.9
Amusement, Hotels, Personal Service, etc.	59.61	211.1	47.25	237.3
All Industry Groups	65.81	233.0	48.94	245.9

(a) Base of index numbers: weighted average minimum weekly wage rate, Australia, 1954 = 100.0.

Index Numbers

The following table shows, in summary form, the index numbers for adult male and adult female weighted average minimum weekly wage rates in Tasmania from 1965:

Weighted Average Minimum Weekly Wage Rates: Index Numbers, All Groups, Adult Males and Adult Females

End of December—	Index Numbers (a)		End of—	Index Numbers (a)	
	Male	Female		Male	Female
1966	153.1	149.7	December 1971 ..	215.3	222.8
1967	160.4	158.8	March 1972 ..	217.3	228.9
1968	173.4	168.1	June 1972 ..	226.9	238.9
1969	184.1	185.6	September 1972 ..	228.9	240.1
1970	192.9	191.7	December 1972 ..	233.0	245.9

(a) Base of index numbers: weighted average minimum weekly wage rate, Australia, 1954 = 100.0.

Components of Weekly Wage Rates (Male)

The next table shows the adult male weighted average minimum weekly rate, according to its Commonwealth and State award elements, for Tasmania. The State award element is shown in its component parts (basic wage, margin and loading). However, adoption of the total wage concept in June 1967 precludes a similar dissection of Commonwealth awards.

**Weighted Average Minimum Weekly Wage Rates, End of December (a)
Components of Wage Rates, All Groups: Adult Males
(\$)**

Particulars	1967	1968	1969	1970	1971	1972
Commonwealth Awards..	44.58	48.46	51.48	r 53.61	r 60.45	66.00
State Awards, etc.— ..						
Basic Wage	34.40	35.75	36.80	36.80	39.00	40.86
Margin	10.15	12.05	13.93	16.58	r 19.65	21.79
Loading	1.88	1.97	2.07	2.46	2.75	2.87
Total	46.43	49.77	52.80	55.84	r 61.40	65.53
All Awards	45.31	48.98	52.00	r 54.49	r 60.82	65.81

(a) For a full week's work (excluding overtime) as prescribed in awards, determinations, etc.

Australian Rates

In the next table, rates and index numbers are shown for each Australian State:

Australia: Weighted Average Minimum Weekly Wage Rates (a): All Groups, Adult Males

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
RATES OF WAGES (\$)							
1967	45.35	44.59	45.55	43.79	45.08	45.31	45.00
1968	49.46	48.86	49.01	48.23	47.72	48.98	48.98
1969	52.38	51.74	51.91	50.76	50.69	52.00	51.86
1970 r	54.40	53.68	55.07	52.12	55.99	54.49	54.20
1971 r	61.50	61.35	62.94	59.42	61.97	60.82	61.48
1972	67.06	67.30	68.12	65.26	65.60	65.81	66.96

Australia: Weighted Average Minimum Weekly Wage Rates (a): All Groups, Adult Males—continued

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
INDEX NUMBERS (b)							
1967	160.6	157.9	161.3	155.1	159.6	160.4	159.3
1968	175.1	173.0	173.5	170.8	169.0	173.4	173.4
1969	185.5	183.2	183.8	179.7	179.5	184.1	183.6
1970 <i>r</i>	192.6	190.1	195.0	184.6	198.2	192.9	191.9
1971 <i>r</i>	217.8	217.2	222.9	210.4	219.4	215.3	217.7
1972	237.4	238.3	241.2	231.1	232.3	233.0	237.1

(a) For a full week's work (excluding overtime), as prescribed in awards, determinations, etc.

(b) Base of index numbers: weighted average minimum weekly wage rate, Australia, 1954 = 100.0.

Hourly Wage Rates in Tasmania

General

Hourly wage rates is the short title for 'weighted average minimum hourly rates payable'. The concept is completely analogous to that embodied in weighted average minimum weekly wage rates and the calculation is similarly based on rates prescribed in awards or determinations of Commonwealth and State industrial authorities or in agreements registered with them.

Definitions

Hours of Work: In the fixation of weekly wage rates, most industrial tribunals prescribe the number of hours constituting a full week's work for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages of hourly rates.

Rural industry is excluded from the calculation of weighted average minimum weekly wage rates and also from the calculation of weighted average minimum hourly wage rates. In addition the shipping and stevedoring group is also excluded from the latter calculation since definite particulars for the computation of hourly wage rates are not available.

The 40-hour week has operated in Australia generally from 1 January 1948 (N.S.W., from 1 July 1947). Nevertheless the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and agreements for a full working week, in respect of adult male workers in all industry groups except rural, and shipping and stevedoring, at 30 June 1972, were: N.S.W., 39.78; Victoria, 39.97; Queensland, 39.89; S.A., 39.96; W.A., 39.85; Tasmania, 39.93; Australia, 39.87. Corresponding figures for adult female workers at 30 June 1972, were: N.S.W., 39.53; Victoria, 39.81; Queensland, 39.70; S.A., 39.77; W.A., 39.78; Tasmania, 39.63; Australia, 39.67.

Weekly Wage Rate Definitions: Apart from exclusion of the shipping and stevedoring industry, the definitions in the section headed 'weekly wage rates' apply with equal force to the calculation of hourly wage rates.

Summary of Details

The following table shows, for Tasmania, weighted average minimum hourly wage rates for adult male and adult female workers in all industries (except rural, and shipping and stevedoring) since 1939:

**Weighted Average Minimum Hourly Wage Rates, All Groups
Adult Males and Adult Females**

End of—	Rates of Wage		Index Numbers (a)	
	Males (b)	Females (c)	Males (b)	Females (c)
	\$	\$		
December—1939	0.2095	<i>n.a.</i>	29.6	<i>n.a.</i>
1945	0.2642	<i>n.a.</i>	37.3	<i>n.a.</i>
1950	0.4952	<i>n.a.</i>	70.0	<i>n.a.</i>
1955	0.7371	0.5056	104.2	100.8
1960	0.8808	0.6037	124.5	120.3
1964	0.9946	0.6822	140.6	136.0
1965	1.0211	0.7052	144.3	140.6
1966	1.0842	0.7520	153.2	149.9
1967	1.1365	0.7979	160.6	159.0
1968	1.2288	0.8444	173.7	168.3
1969	1.2955	0.9323	183.1	185.8
1970	1.3550	0.9632	191.5	192.0
September—1971	1.4909	1.0695	210.7	213.2
December—1971	1.5181	1.1191	214.6	223.1
March—1972	1.5330	1.1498	216.7	229.2
June—1972	1.5935	1.2004	225.2	239.3
September—1972	1.6057	1.2064	227.0	240.5
December—1972	1.6395	1.2352	231.7	246.2

(a) Base of index numbers: weighted average hourly wage rate, Australia, 1954 = 100.0.

(b) All industry groups except rural and shipping and stevedoring.

(c) All industry groups except rural, mining and quarrying, and building and construction.

Average Weekly Earnings in Tasmania

Source of Data

The figures in the following section are derived from particulars of employment and of wages and salaries recorded on pay-roll tax returns, from other direct collections and from estimates of the unrecorded balance. (In general, businesses with pay-rolls of less than \$1,734 per month are exempt from pay-roll tax and do not need to supply monthly details of employment and of wages and salaries.) Pay of members of the defence forces is not included.

Definitions

'Employed Male Unit': This is a special unit devised to overcome the difficulty that particulars of wages and salaries are not available separately for males and females. (The basic data available are the number of males, the number of females and the total pay-roll only.) The number of females is converted to a *lesser equivalent number* of males by taking into account the approximate ratio of female to male earnings; a divisor for deriving average 'male' earnings is then obtained by adding the actual number of males to the calculated number of 'male equivalents'. The divisor so obtained is called 'employed male units'.

From 1 September 1966, the series has been revised using separate ratios of male to female earnings for each State. (The ratio used for Tasmania is 49 per cent; for calculating Australian figures a weighted average of the six States of approximately 52.5 is used.)

Components of Pay-roll: Pay-roll includes, in addition to wages at award rates, the earnings of salaried employees, overtime earnings, over-award and bonus payments, and payments made in advance or retrospectively (e.g. advances of annual leave pay). Included also are the wages and salaries, not only of adults, but also of juniors; the earnings may relate to full-time, part-time or casual workers.

Invalid Comparison: Average earnings per employed male unit cannot be compared with male weighted average minimum weekly wage rates shown in the previous section. Weighted average minimum weekly wage rates relate to award rates for adult male wage earners in non-rural industry for a full week's work, at the end of each month or year; the average weekly earnings per employed male unit are derived from the pay-roll concept shown in the previous paragraph, and obviously cover a wider field of earnings and of wage and salary earners.

Seasonal Influence: Quarterly figures are affected by seasonal influences. Comparisons as to trends are generally best made by relating complete years or corresponding periods of incomplete years.

Annual and Quarterly Details

The following table shows, for Tasmania, average weekly earnings per employed male unit; the figures are arranged both as quarterly and annual averages:

Average Weekly Earnings Per Employed Male Unit (a)
(£)

Year	Average for Quarter Ending—				Average for Year
	September	December	March	June	
1968-69	62.80	68.40	63.50	67.50	65.60
1969-70	68.80	73.90	r 66.10	r 74.10	r 70.70
1970-71 r ..	74.20	80.30	74.40	84.50	78.40
1971-72 r ..	82.10	90.00	83.70	91.30	86.90
1972-73	90.30	98.80	87.60	100.90	94.50

(a) For definitions, see earlier section headed 'Definitions'.

Australian Details

The next table shows average weekly earnings per employed male unit for each Australian State. *Precise* comparisons between average earnings per employed male units for different States depends upon a common ratio of male to female earnings for all States; however, the actual ratio used to calculate the earnings varies from State to State. Therefore precise comparisons between States or between the State figures and the Australian figures cannot be made.

Australia: Average Weekly Earnings Per Employed Male Unit (a)
(£)

Period	N.S.W.(b)	Vic.	Qld	S.A. (c)	W.A.	Tas.	Australia
1967-68	67.00	67.60	60.20	61.10	63.90	61.90	65.30
1968-69	72.70	72.10	64.30	65.20	r 68.80	65.60	70.20
1969-70	78.80	78.10	69.20	70.90	75.50	r 70.70	76.10
1970-71 r ..	87.70	86.10	77.70	78.20	84.80	r 78.40	84.50
1971-72 r ..	96.50	93.60	86.90	86.70	93.60	86.90	93.00
1972-73	105.10	102.60	96.90	94.30	99.00	94.50	101.50
1970—June Quarter ..	82.30	81.10	71.90	73.50	78.00	r 74.10	79.10
December Quarter ..	89.70	87.50	79.10	78.70	85.70	r 80.30	86.10
1971—June Quarter r ..	92.90	91.20	82.40	82.00	89.80	r 84.50	89.50
December Quarter ..	110.10	r 96.60	89.30	r 88.80	r 96.30	r 90.00	96.00
1972—June Quarter r ..	100.60	97.40	91.40	89.70	94.40	91.30	96.70
December Quarter ..	108.10	105.50	98.70	96.20	99.30	98.80	104.10
1973—June Quarter ..	111.70	108.30	103.50	100.00	104.90	100.90	107.70

(a) For definitions, see section headed 'Definitions'.

(b) Includes the Australian Capital Territory.

(c) Includes the Northern Territory.

Survey of Weekly Earnings, May 1971

General

The survey, in respect of adult male employees for the pay-period which included 12 May 1971, was conducted by means of stratified random samples of: (i) private employers subject to pay-roll tax; (ii) public hospitals; (iii) local government authorities; and in addition a complete coverage of Commonwealth and State government departments, government authorities and semi-government bodies.

The object of the survey was to obtain estimates of the number and proportions of full-time adult male employees (paid for a full week) in various total weekly earnings groups, average weekly total earnings for these employees, and a dissection of average weekly total earnings into average weekly overtime earnings and average weekly ordinary time earnings. The average weekly earnings for private employees in this survey are not directly comparable with the average earnings for full-time adult males obtained from the October surveys of weekly earnings and hours because this survey was confined to full-time adult male employees paid for a full working week.

For Australia as a whole the survey was based on returns from a sample of 4,995 private employers plus returns from public hospitals and government employers. The results are representative of 2,212,600 full-time adult male employees made up of 1,500,600 full-time adult males in private employment and 712,000 in government employment.

Definitions

Total Gross Weekly Earnings: Gross earnings of adult male employees before taxation and other deductions have been made. Includes overtime earnings, ordinary time earnings, shift allowances, penalty rates, commission and similar payments and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the specified pay-period. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly. Retrospective payments are excluded.

Full-time Adult Male Employees: Those adult male employees whose normal hours of work were 30 or more a week and who were paid for their full normal hours of work.

Private Employees: Employees of private employers subject to pay-roll tax and employees of all public hospitals.

Government Employees: Civilian employees of Commonwealth and State government departments, government authorities and semi-government bodies, and of local government authorities.

Managerial, Executive, Professional and Higher Supervisory Staff: In the case of private employers the allocation of employees between these categories depended on the judgment of the individual employers completing the returns. In the case of government employers 'managerial, etc., staff' were generally defined as: (i) those employees who did not receive payment for overtime; and (ii) those employees who, although subject to payment for overtime, were in charge of a significant number of employees in a separate establishment (or establishments).

Results of Survey

The following table classifies full-time adult male employees by total weekly earnings groups, for Tasmania, in May 1971:

Full-time Adult Male Employees, May 1971 (a)
Total Weekly Earnings: All Industry Groups (b) (Private and Government Employees)

Total Weekly Earnings	Full-time Adult Male Employees	Proportion of Total Number of Full-time Adult Male Employees	
		Each Group	Cumulative
\$	'000	per cent	per cent
Up to 43.99	1.1		
44.00- 44.99			
45.00- 45.99		0.1	0.1
46.00- 46.99			
47.00- 47.99			
48.00- 48.99	1.1	1.7	1.8
49.00- 49.99			
50.00- 51.99	1.0	1.4	3.2
52.00- 53.99	1.4	2.1	5.3
54.00- 55.99	1.7	2.6	7.9
56.00- 57.99	1.7	2.6	10.5
58.00- 59.99	1.9	2.9	13.4
60.00- 64.99	5.4	8.1	21.5
65.00- 69.99	6.0	9.1	30.6
70.00- 74.99	5.9	9.0	39.6
75.00- 79.99 (c)	5.9	8.9	48.5
80.00- 99.99	15.8	23.9	72.3
100.00-119.99	7.9	12.0	84.4
120.00 and Over	10.3	15.6	100.0
Total	66.1	100.0	..

(a) Pay-period which included 12 May 1971.

(b) Excludes rural industry and private domestic service.

(c) Includes managerial, etc., staff earning up to \$79.99.

Surveys of Weekly Earnings and Hours

General

Sample surveys in respect of most employers in the private sector subject to pay-roll tax have been conducted annually during recent years by the Bureau as at the last pay-period in October. The results of the surveys are based on returns from stratified random samples of private employers subject to pay-roll tax; for Australia as a whole, the 1972 survey was based on the returns of approximately 5,100 employers whose employees numbered 1,810,000 males and 860,000 females.

Definitions

Weekly Earnings: Gross earnings before taxation and other deductions have been made; includes overtime earnings, ordinary time earnings, shift allowances, penalty rates, commission and similar payments; and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the specified pay-period. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly. Retrospective payments are excluded.

Juniors: Those under 21 years of age not paid adult rates (but 'adults' may include those under 21 years receiving adult rates).

Full-time Employees: Employees who ordinarily work 30 hours or more a week and who received pay for the last pay-period in October.

Results of Surveys

The next table shows for Tasmania: (i) average weekly earnings; (ii) average weekly hours paid for; and (iii) average hourly earnings.

Average Earnings and Hours, Private Employment (a): All Industry Groups (b)

Particulars	October (c)				
	1968	1969	1970	1971	1972
AVERAGE WEEKLY EARNINGS (\$)					
Adult Males	65.50	69.60	74.90	83.60	88.40
Junior Males	32.40	34.50	37.90	41.80	44.30
Adult Females	37.90	40.00	43.60	50.40	55.30
Junior Females	24.50	26.60	28.70	33.20	35.10
AVERAGE WEEKLY HOURS PAID FOR					
Adult Males	42.0	42.2	42.0	41.7	41.7
Junior Males	40.7	40.2	40.6	40.4	40.0
Adult Females	38.9	38.9	39.1	38.9	39.1
Junior Females	39.2	39.0	39.0	38.8	39.3
AVERAGE HOURLY EARNINGS (\$)					
Adult Males	1.56	1.65	1.78	2.00	2.12
Junior Males	0.80	0.86	0.93	1.03	1.11
Adult Females	0.97	1.03	1.12	1.30	1.42
Junior Females	0.62	0.68	0.74	0.85	0.89

(a) Private employees only. Excludes managerial, executive, professional and higher supervisory staff. Full-time employees only included.

(b) Excludes rural industry and private domestic services.

(c) Last pay-period in October.

Average Weekly Overtime and Ordinary Time Earnings (a), Private Employment (b), October 1972 (\$)

Particulars	Average Weekly Overtime Earnings	Average Weekly Ordinary Time Earnings	Average Weekly Total Earnings
Adult Males—			
Manufacturing—			
Founding, Engineering, Vehicles, etc.	11.80	88.30	100.20
Other	9.00	74.90	83.90
Total	9.70	78.50	88.30
Non-manufacturing	7.40	81.10	88.50
All Industry Groups	8.50	79.90	88.40
Junior Males, All Industry Groups	2.10	42.20	44.30
Females, All Industry Groups—			
Adult	1.80	53.50	55.30
Junior	0.80	34.30	35.10

(a) Averages for all employees represented in the survey.

(b) Private employees only. Excludes managerial, executive, professional and higher supervisory staff. Full-time employees only included.

Minimum Wage Rates, Selected Occupations, Hobart

The following table shows minimum wage rates for selected occupations as prescribed by Federal and State awards, agreements and various determinations (both registered and un-registered) operative at 31 December in recent years. Unless specified, rates shown in the following table are for a 40-hour week. Increases reflect various margin adjustments.

Selected Minimum Wage Rates, Adult Males and Females: Hobart
(£)

Industry and Occupation	31 December		
	1970	1971	1972

ADULT MALES			
Primary Production—			
Farming (General), General Hand (a)	43.00	47.00	51.70
Grazing, Shearer (per 100 Flock Sheep) (b) ..	21.00	21.94	22.63
Mining and Quarrying—			
Coal Mining (c), Miner (Machine) (d)	59.10	68.60	70.60
Quarrying, Labourer	48.00	50.90	52.90
Engineering, Metals, Vehicles, etc.—			
Engineering—Fitter or Turner	57.10	66.50	71.50
Toolmaker	62.20	71.90	76.90
Textiles, Clothing and Footwear—			
Clothing Trades (Readymade), Tailor	54.20	63.40	65.40
Footwear, Maker	47.40	53.20	57.90
Textiles—Knitting, Knitter	46.00	55.40	57.40
Woollen, Weaver	44.10	49.00	54.70
Food, Drink and Tobacco—			
Aerated Water and Cordials, General Hand ..	43.40	47.00	53.70
Bacon Curing, Boner	58.90	68.80	77.50
Bread Baking, Doughmaker	66.00	70.00	79.00
Brewing, General Hand	49.08	52.04	54.15
Butter, Cheese and Milk Processing, Butter Maker ..	48.90	57.60	59.60
Confectionery, Confectioner (Group 1)	55.40	61.70	65.70
Jam, Fruit and Vegetable Preserving, General Hand	46.80	51.00	55.00
Meat Industry—Labourer (Beef, Mutton)	48.10	53.30	56.90
Slaughterman (Mutton)	67.80	71.90	81.30
Sawmilling, Furniture, etc.—			
Sawmilling and Timber Yards—Machinist (A Grade)	57.10	64.70	68.60
Sawyer (Circular)	47.00	54.00	57.60
Paper, Printing, etc.—			
Printing (General)—Bookbinder	57.10	66.50	74.50
Machine Compositor	62.20	71.90	79.90
Printing (Newspapers)—Machine Compositor (Day			
Work)	81.00	85.90	98.90
Machine Compositor (Night			
Work) (e)	88.20	93.10	107.90
Other Manufacturing—			
Brickmaking, Drawer	48.15	51.00	58.10
Electricity Generation and Supply, Electrical Fitter ..	62.00	65.40	76.40
Building and Construction—			
Building (f)—Bricklayer, Roof Tiler	76.44	80.60	90.30
Builder's Labourer, Skilled	62.52	65.84	74.56
Builder's Labourer, Unskilled	56.36	59.38	65.89
Carpenter	77.26	81.43	91.12
Electrician (Installation) (g)	66.10	69.90	79.10
Plasterer	76.44	80.60	90.30
Painter	76.32	80.49	90.19
Plumber (g)	68.60	72.90	74.90
Railway Services—			
Traffic—Locomotive Engine Driver	68.75	78.55	83.55
Porter	45.45	51.45	57.25
Road and Air Transport—			
Road Transport, Motor Truck Driver (Over 25 cwt			
to 3 ton)	56.15	59.50	70.50
Tramways and Buses, Bus Driver (One-man Operator)	57.40	63.00	72.50
Shipping and Stevedoring—			
Shipping (Cargo Vessels), Able Seaman (b) (i) ..	54.10	57.00	59.00
Stevedoring, Wharf Labourer (per hour) (j) ..	1.80	1.91	2.24

Selected Minimum Wage Rates, Adult Males and Females: Hobart—continued
(\\$)

Industry and Occupation	31 December		
	1970	1971	1972

ADULT MALES—continued

Communication—			
Post Office, Postman	58.85	62.38	69.05
Wholesale and Retail Trade—			
Butchers, General Butcher	57.10	66.40	74.60
Petrol Service Stations, Attendant	44.20	47.00	51.70
Retail Stores, Shop Assistant (Grocery)	44.90	50.10	52.10
Wool Stores, Wool Classer	60.70	64.30	71.30
Public Administration, Community and Business Services—			
Hospitals, Orderly	49.15	53.54	55.54
Other Services—Graduate Engineer	81.00	94.71	96.71
Graduate Scientist	74.40	78.83	89.02
Amusement, Hotels, Personal Service, etc.—			
Hairdressing, Hairdresser (Men's)	56.50	59.90	66.50
Hotels (k), Barman	44.90	55.60	57.60
Restaurants (k), Cook (One Cook Only Employed)	46.20	57.00	59.00
Watchmen, Cleaners, etc., Office Cleaner (Day)	46.20	49.20	56.90

ADULT FEMALES

Textiles, Clothing and Footwear—			
Dry Cleaning, Presser	48.80	60.20	62.20
Order Dressmaking, Machinist	38.20	44.50	46.50
Readymade Dressmaking, Table Hand or Coat Machinist	37.20	44.50	46.50
Textiles—Knitting, Machinist	34.30	38.20	44.10
Woollen, Weaver	34.70	38.60	43.80
Food, Drink and Tobacco—			
Confectionery, General Hand	35.70	39.00	41.00
Jam, Fruit and Vegetable Preserving, General Hand	35.00	37.10	42.00
Transport and Communication—			
Post Office, Telephonist (l)	44.28	52.89	59.48
Wholesale and Retail Trade—			
Retail Stores—Shop Assistant (Confectionery)	35.10	39.90	43.00
Shop Assistant (Drapery)	43.70	49.00	51.00
Public Administration and Community and Business Services—			
Commonwealth Public Service, Typist (m)	47.29	54.52	64.70
Hospital Nurses (Qualified), First Year	54.77	58.10	69.80
Amusement, Hotels, Personal Service, etc.—			
Cleaners, Office Cleaner (Day)	37.80	40.10	47.80
Hairdressing, Hairdresser	40.45	46.25	51.85
Hotels (k), Barmaid	44.90	55.60	57.60
Restaurants (k), Waitress	38.60	41.20	43.20
Theatres, Usher, Ticket-taker, etc. (l)	40.00	42.40	46.10

(a) 44-hour week. (b) Rates shown are 'not found rates'. Shearers' hours of work are 40 per week. (c) In addition to the rate shown, an attendance allowance is payable for each full fortnightly pay-period worked. (d) 35-hour week. (e) 38-hour week. (f) Rates shown are weekly equivalents of hourly rates. They include allowances for excess fares, travelling time, sick leave, statutory holidays, following the job, etc. (g) Actual weekly rates. (h) Includes an allowance valued at \$5.47 per week for keep and accommodation. (i) Rates shown are for 40 hours of work; seamen are required to work eight hours per day. (j) Rates shown are for casual wharf labourers on other than special cargo work. (k) Weekly cash payments where board and lodging are not provided. (l) 36-hour week. (m) 36½-hour week.

WAGE-FIXING AUTHORITIES

Tasmanian State Wages Boards

History

The evolution of the Tasmanian Wages Boards system is described in the 1968 *Year Book*. The following sections describe the present wages boards situation.

Constitution

A wages board is set up for the common trade, industry or profession of each employers' group (e.g. Building Trades, including employers of painters, glaziers, signwriters, etc.). On each board, of which there are about 70, the employers and the employees have equal representation; one board (Electrolytic Zinc) has eight representatives for each, while the smallest have only two representatives for each. The *Wages Boards Act* 1920 was amended in 1961 to provide for a full-time government-appointed Chairman.

Members of Boards

Qualification for Board Membership: Following the 1970 amendments a person may be appointed to membership of a State wages board if: (i) he is an employer, manager or employee engaged in the particular trade; (ii) he has had twelve months' experience, gained within five years immediately preceding appointment, of managing a corporate body engaged in the industry and is authorised by the particular body to accept appointment; (iii) he is an officer of an association which includes members engaged in the relevant trade; or (iv) he is an officer of the Tasmanian Trades and Labour Council. The provisions of the 1970 amending Act: (i) permit an officer of an association connected with more than one trade to be appointed to a board; and (ii) recognise service in associations connected with the trade as experience in the trade. Not more than half of the employer or employee representatives on a board are to be specialists i.e. representatives from employers' associations or trade unions. (If the number of representatives is an odd number the next even number is used to determine the maximum number of specialists who may sit on the board.) The Crown, as an employer, is not represented on the wages boards. Any member who either: (i) ceases to be engaged in the trade covered by the wages board; or (ii) ceases to be an officer of an association connected with the trade and is not otherwise qualified for membership, is required to vacate his seat on the wages board.

Nomination and Appointment of Board Members: The 1970 amendments make provision for nomination of board members by: (i) employer and employee organisations; and (ii) individual employers and employees. Special provisions apply to officials of the Tasmanian Trades and Labour Council. If the number of nominees falls short of the positions to be filled, the Minister may select and appoint the necessary additional persons. When the number of nominees exceeds the number of vacant positions, the Minister selects the representatives from the nominees received. The Minister's decision is final. (Previous provisions for elections in the above two cases were repealed.)

Board Meetings and Proceedings

When a quorum is not present the Chairman is required to adjourn proceedings for not less than half an hour, and if at the end of this interval a quorum is not present, the powers of the board can be exercised by a majority of the members (including the Chairman) present.

Role of Chairman

The Chairman's chief power at meetings of boards derives from the fact that he has a casting vote; he wields no arbitral power but is enjoined, when there is equal division between the representative members to do all things ('... whether by adjourning ... by making suggestions, consulting with members ... or otherwise ...') needed to obtain agreement of the board, before deciding the matter at issue on his casting vote. From the meeting's recorded decisions, the Chairman drafts a statement of the amended wage-rates, allowances and conditions; this is known as a determination and upon gazettal becomes law.

The Chairman may also determine any matter placed before him by a majority of the board members. In such cases his determination is regarded as a decision of the board. Further powers were given to the Chairman under the common rule amendments contained in the 1970 Act.

Common Rule Determinations

Section 11 of the *Wages Boards Act* 1970 contains the following important amendment to the principal Act:

‘25B—(1) On application being made to the Minister by—

(a) an organisation of employers; or

(b) the body known as the Tasmanian Trades and Labour Council,

for making of a determination under this section in relation to a matter referred to in the application, the Minister may refer the application to the Chairman for determination.’

The Chairman may only make common rule determinations in respect to the following matters: (i) basic wage; (ii) minimum wage; (iii) standard hours of work; (iv) paid leave of absence; and (v) a matter, determined in an award under a Commonwealth Act, which affects or relates to 10 or more trades for which State wages boards have been appointed. Determinations under this provision apply to all boards affected by the particular matter.

Before making a ‘common rule determination’ the Chairman is required to: (i) confer with persons engaged in the relevant trades as he thinks necessary; and (ii) in his determination give due consideration to these persons’ opinions.

When the common rule determination provisions are not or cannot be applied, the matter may be heard as a test case.

Test Cases

On occasion, issues are raised which do not fall within the scope of a common rule determination but which obviously have wide implications, e.g. general margins claims. The meeting of the particular wages board raising the issue may be adjourned and a wider conference convened at which all major employer and employee groups are represented. The question can then be argued as one affecting a number of boards, or often all boards, but the final outcome is a determination affecting the particular wages board which raised the issue. This determination then sets the pattern for the variation of determinations of other wages boards. An amendment to the Act in 1966 provides for the variation of a wages board determination by written application of all representative members, if the Chairman approves; this obviates the need for many formal meetings and also allows the outcome of test cases to be speedily adopted in the determinations of all boards.

Powers and Functions of the Boards

A board may determine any industrial matter in relation to the trade for which it has been appointed. Included in the matters which it may determine are: wage rates; hours of work; leave (other than long service leave); the date from which any determination becomes effective; privileges, rights and duties of employers and employees; the mode, terms and conditions of employment. The boards may not determine matters relating to: (i) opening and closing hours; (ii) bonus payments; (iii) superannuation schemes; and (iv) engagement, dismissal or reinstatement of any particular class of employees.

Wages boards determinations are now binding upon the Crown.

Industrial Disputes

Under the Act, the Minister may call a compulsory conference for the purpose of settling or preventing industrial disputes. Industrial disputes are defined in Section 16 of the 1970 Act as:

- '(a) a matter in respect of which a board is authorised by this Act to make a determination; or
- (b) the engagement, dismissal, or reinstatement of any particular employee or particular class of employees.'

Those summoned may include not only the direct participants, but also other persons connected in industrial matters which bear on the dispute or, even more broadly, any persons at all whose attendance may help a settlement. By an amendment of the Act in 1960 the conference Chairman has the power to make a written order directing certain action to be taken if he considers it will prevent or settle the dispute; recipients of such orders are bound to comply, the penalty for ignoring an order being \$200.

The compulsory conference is presided over by a person appointed by the Minister but, in practice, the Chairman of Wages Boards is generally given this conciliation role.

Tasmanian Public Service Tribunal

In 1973 two new bodies were established (see the next sections) to deal with industrial matters affecting the State public service, and the Tasmanian Public Service Tribunal was abolished. (For a description of the Tribunal see the 1973 *Year Book*.)

Tasmanian Public Service Board

General

Legislation passed in 1973 established two new industrial authorities, the Public Service Board and Public Service Arbitrator (for details see the next section) to deal with awards, working conditions, etc. for employees of the State Government and certain State authorities. The Public Service Board comprises three Commissioners appointed by the Governor for terms not exceeding five years. One of the three Commissioners is appointed Chairman of the Board. In addition to members of the State Public Service the Board's jurisdiction includes persons employed in the teaching service, police force, parliamentary staff positions, public hospitals, non-academic staff of the College of Advanced Education, the railway service and various State authorities.

Industrial Functions

The Public Service Board may make awards covering wages, salaries and conditions of work for employees falling within its jurisdiction. A main function of the Board is determining 'principal awards' i.e. an award which covers all employees within the scope of a particular group such as administrative and clerical officers. The determining of a principal award involves a complete review of the wages and salaries and other work conditions of all positions within the scope of the particular award. The Board, under the *Public Service Act* 1973, when determining a principal award may cover any or all of the following:

- '(a) Determining the scales of salaries for grades, divisions, and occupational groups of employees, and for sub-divisions of those grades, divisions, and occupational groups;
- (b) Determining the ordinary hours of work, and the period to be worked before overtime rates become payable, and the rates of remuneration and conditions in respect of minimum earnings, overtime, travelling time, shiftwork, night-work, and special duty, and in respect of work on Saturdays, Sundays and holidays and at any other time outside the ordinary hours of duty;
- (c) Determining minimum rates of pay for adult employees and for married employees;
- (d) Determining the rates of relieving, travelling, mileage, proficiency, lodging, and meal allowances and expenses and the terms and conditions on which they may be granted and paid;
- (e) Determining tool allowances, clothing allowances, and other allowances in the nature of additional pay for classes or conditions of work warranting the payment thereof;

- (f) Determining the terms and conditions on which industrial clothing shall or may be issued;
- (g) Determining the basis and method of adjustment of salaries in order to meet variations in the cost of living, and prescribing the tables, scales or figures with reference to which those adjustments shall be made;
- (h) Determining the cases in which and conditions on which deductions shall be made from salaries on account of quarters, fuel, light, power, board, and other facilities and amenities provided for employees and the rates of those deductions and the basis on which they shall be calculated; and
- (i) Determining and regulating the qualifications (including educational qualifications) required for advancement from a grade or division to a higher grade or division.

Unless revoked, a principal award is effective for three years, however, during the currency of the principal award it may be amended by the Board to eliminate anomalies, errors or defects contained in the award, or to incorporate determinations of the Commonwealth Conciliation and Arbitration Commission (e.g. national wage case decisions, etc.).

The Tasmanian Public Service Arbitrator

The *Public Service Act 1973*, in addition to creating the Public Service Board, also established the position of Public Service Arbitrator. The Public Service Arbitrator, appointed by the Governor for a term not exceeding five years, has the same area of jurisdiction as the Public Service Board. Applications to the Arbitrator for arbitration on awards may be made where the Public Service Board has: (i) refused an application for an award; (ii) made an award (including an award to supplement a consent award); (iii) allowed three months or longer to elapse after an application has been made for an award without (a) refusing the application or (b) making an award (including a consent award). Such applications are lodged with the registrar and the Arbitrator, after he has been satisfied that the applicant is entitled to apply for arbitration, arranges to hear the applicant and others affected by the award. After hearing and considering an application the Arbitrator may: (i) refuse the application; (ii) confirm the award or any of its provisions; (iii) direct the Board to vary the award by omitting, altering or adding to the award's provisions.

Industrial Disputes

Statistics of industrial disputes refer only to those involving a stoppage of work of 10 man-days or more. The information is compiled from the following sources: (i) direct from employers and trade unions; (ii) reports from government departments and authorities; (iii) reports from State and Commonwealth industrial authorities; and (iv) information contained in trade journals, newspapers, etc. Particulars of some stoppages are estimated and the following statistics should be regarded as giving only a broad measure of industrial stoppages.

Industrial Disputes (a)

Year					Disputes	Workers Involved	Working Days Lost	Estimated Loss in Wages
					no.	'000	'000	\$'000
1965	..	..	..	..	17	5.1	3.9	41.4
1966	..	..	..	..	14	2.5	3.1	34.8
1967	..	..	..	..	29	6.2	7.3	82.3
1968	..	..	..	..	28	7.8	13.0	149.0
1969	..	..	..	..	44	8.7	9.9	115.3
1970	..	..	..	..	66	14.8	32.2	451.1
1971	..	..	..	..	46	14.7	20.6	317.3
1972	..	..	..	..	48	15.2	19.2	(b) 305.1

(a) Involving a stoppage of 10 man-days or more.

(b) The estimated Tasmanian loss was 0.95 per cent of the Australian total in 1972.

The following table analyses industrial disputes according to the industry group of the labour force involved:

Industrial Disputes By Industry Groups

Period	Mining and Quarrying	Manufacturing						Building and Construction
		Engineering, Metals, Vehicles	Textiles, Clothing, Footwear	Food, Drink, Tobacco	Paper, Printing	Other	Total	
NUMBER OF DISPUTES								
1969	7	2	..	2	1	4	9	13
1970	11	13	1	4	2	3	23	18
1971	14	5	6	2	..	2	15	9
1972	6	7	3	2	6	4	22	7
1972—								
March Qtr ..	2	..	2	..	3	1	6	3
June Qtr ..	2	4	..	1	..	..	5	1
Sept. Qtr ..	1	2	..	..	..	1	3	2
Dec. Qtr ..	1	1	1	1	3	2	8	1
WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)								
1969	1.3	0.2	..	0.1	0.1	0.6	1.0	0.9
1970	3.5	1.5	..	1.2	0.5	1.6	4.9	2.8
1971	2.4	2.8	5.0	0.4	..	..	8.2	2.5
1972	2.2	7.8	0.8	0.2	1.1	0.2	10.1	0.5
1972—								
March Qtr ..	1.0	..	0.6	..	0.5	..	1.1	0.3
June Qtr ..	0.1	3.7	..	..	..	..	3.7	..
Sept. Qtr ..	0.3	3.9	..	..	..	..	3.9	0.1
Dec. Qtr ..	0.9	0.2	0.2	0.2	0.6	0.2	1.4	..
WORKING DAYS LOST ('000)								
1969	1.4	0.4	..	0.3	0.1	0.1	1.0	1.9
1970	11.2	2.1	..	0.3	0.2	3.0	5.6	9.0
1971	5.0	4.3	5.2	0.4	..	0.2	10.0	4.2
1972	4.0	5.9	1.9	0.8	1.5	0.3	10.5	2.0
1972—								
March Qtr ..	1.0	..	1.6	..	0.7	0.1	2.4	1.4
June Qtr ..	0.2	2.6	..	..	..	..	2.6	..
Sept. Qtr ..	0.7	3.2	..	..	..	..	3.3	0.3
Dec. Qtr ..	2.0	..	0.3	0.8	0.9	0.2	2.2	0.2
ESTIMATED LOSS IN WAGES (\$'000)								
1969	18.4	4.5	..	3.4	1.4	1.5	10.9	27.9
1970	194.8	25.4	0.3	3.3	1.8	40.0	70.8	116.5
1971	102.3	59.7	56.0	4.8	..	2.4	122.9	73.3
1972	72.9	88.0	24.8	11.2	24.3	4.3	152.6	39.5
1972—								
March Qtr ..	21.4	..	21.5	..	11.4	..	32.9	28.9
June Qtr ..	3.0	42.3	..	0.3	..	..	42.6	0.4
Sept. Qtr ..	12.0	45.4	..	..	..	0.5	45.9	5.3
Dec. Qtr ..	36.5	0.4	3.4	10.9	12.9	3.8	31.2	4.9

Industrial Disputes By Industry Groups—continued

Period	Railway Services	Road and Air Trans- port	Shipp- ing	Steve- doring	Amuse- ment, Hotels, Personal Service, etc.	Other Industries (a)	Total
NUMBER OF DISPUTES							
1969 .. .. .	..	4	3	5	2	1	44
1970 .. .. .	..	2	2	6	..	4	66
1971 .. .. .	..	1	2	4	..	1	46
1972	2	3	1	3	..	4	48
1972—							
March Quarter ..	..	..	..	..	..	1	12
June Quarter ..	2	1	1	3	..	1	16
September Quarter ..	..	2	..	..	..	..	8
December Quarter ..	..	..	..	..	..	2	12
WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)							
1969 .. .. .	..	2.8	0.1	1.8	0.6	0.1	8.7
1970 .. .. .	..	0.7	..	2.3	..	0.6	14.8
1971 .. .. .	..	0.2	0.1	1.3	..	..	14.7
1972	0.4	0.2	0.1	1.3	..	0.4	15.2
1972—							
March Quarter ..	..	..	..	..	..	0.1	2.5
June Quarter ..	0.4	0.1	0.1	1.3	..	0.1	5.9
September Quarter ..	..	0.1	..	..	..	..	4.4
December Quarter ..	..	..	..	..	..	0.1	2.5
WORKING DAYS LOST ('000)							
1969 .. .. .	..	3.1	0.2	1.9	0.3	0.1	9.9
1970 .. .. .	..	3.1	..	2.7	..	0.6	32.2
1971 .. .. .	..	0.2	0.2	0.9	..	..	20.6
1972	0.9	0.4	0.1	0.9	..	0.5	19.2
1972—							
March Quarter ..	..	..	..	..	..	0.1	4.9
June Quarter ..	0.9	0.1	0.1	0.9	..	0.1	4.9
September Quarter ..	..	0.3	..	..	..	..	4.6
December Quarter ..	..	..	..	..	..	0.3	4.8
ESTIMATED LOSS IN WAGES (\$'000)							
1969 .. .. .	..	30.3	2.8	21.1	2.3	1.7	115.3
1970 .. .. .	..	31.2	0.5	30.7	..	6.5	451.1
1971 .. .. .	..	2.9	3.8	11.9	..	0.3	317.3
1972	13.1	6.4	1.1	12.7	..	6.8	305.1
1972—							
March Quarter ..	..	..	..	..	..	1.0	84.2
June Quarter ..	13.1	1.7	1.1	12.7	..	1.7	76.2
September Quarter ..	..	4.7	..	..	..	..	67.9
December Quarter ..	..	..	..	..	..	4.2	76.8

(a) Includes: communications; finance and property; wholesale and retail trade; public authority (n.e.i.) and community and business services.

Appendix A

CHRONOLOGY AND LATER INFORMATION

CHRONOLOGY: THE YEAR 1973

US Sloop *American Eagle* took line honours and was winner on handicap of the Sydney-Hobart Yacht race. Tasmanian tobacco tax became effective. The Electrolytic Zinc Company Pty Ltd received permission to dump jarosite waste at sea. Federal Government withdrew its offer to finance an alternative to the H.E.C. scheme for Lake Pedder. First train travelled the Bell Bay rail link. The first casino in Australia—Wrest Point—officially opened. Argentine ant infestation discovered at Ulverstone. Vital power station sabotaged with gelignite bomb at strike-hit Electrolytic Zinc Company's Rosebery mine. Age of Majority Bill passed by Parliament giving vote to 18 year olds. The \$121m Mersey-Forth H.E.C. scheme officially opened. Work begins on \$1m Alanvale Matriculation College, Launceston. A further outbreak of bovine brucellosis found in the Circular Head area. \$165,000 psychiatric centre completed at Latrobe. Committee appointed to investigate Tasmanian liquor laws. National Wage Case—minimum wage lifted to \$60 and weekly award wage rates increased by \$2.50 plus two per cent. Avoca wallaby shoot held again. A major kelp harvesting and processing industry announced for King Island. Tasmania's State politicians received a 40 per cent rise in salaries. Chief Justice Sir Stanley Burbury K.B.E. named new State Governor—first Australian to hold the State's vice-regal office. Bass Strait scallop beds resulted in highest scallop catch since the early 1960s. Mr Guy Green appointed new Chief Justice—youngest man ever appointed to State's highest judicial position. U.S. Company undertook exploratory drilling for gold near Mathinna. No commercial quantities of scallops located in Fisheries Division survey of D'Entrecasteaux Channel. State government to investigate the feasibility of building a second bridge across the Derwent near Hobart. Federal Budget set aside \$0.5m for planning and development of the Tamar Valley area. State government to spend \$558,000 on Tamar Valley road improvements. Storeys Creek tin mine closed down. Allegations of bribery and corruption of State politicians made the subject of a police enquiry. Australian dollar revalued upwards by five per cent. Contract worth \$3m let for the first stage of the Burnie Matriculation College. Heavy concentrations of zinc, copper and cadmium found in oysters collected from Derwent and Tamar estuary areas. Legislative Council Select Committee suggested compulsory blood tests should replace breathalyser testing of drivers' blood alcohol levels. Preliminary work commenced on a \$4.9m redevelopment project at the Electrolytic Zinc Company's Risdon works. Tasmanian Professional Fishermen's Association conference expressed grave concern over industrial pollution of Bass Strait waters. Feasibility study commenced into proposed pig-iron industry for north-west coast. Two-up legalised at Hobart casino. The State government bought the 350 ton *Blythe Star* for the King and Flinders Island shipping runs. A Japanese company—Nippa Light Metal Co Ltd—to investigate the possibility of establishing an aluminium refining plant in Tasmania. The Premier rejected a Commonwealth offer to finance draining of the enlarged Lake Pedder. A trout farm with an ultimate annual output of 250,000 fish established at Huonville. The Transport Commission's *Blythe Star* lost at sea. Seven survivors located at Deep Glen Bay on the Tasman Peninsula after they had drifted eight days on a life raft. Two of the 10-man crew died when the vessel sank and a third died shortly after the life raft reached shore. Preliminary work began on H.E.C. Pieman Scheme. Tasmania's Goliath Cement Holdings Ltd announced a \$10m expansion programme at its Railton plant to be completed over the next three years. Comprehensive survey ordered of parts of Bass Strait to determine the effects of calcine waste dumping by North-West Acid Pty Ltd (Burnie). The Federal government made a \$95,000 grant for restoration of Port Arthur convict settlement site. A \$2m common-user berth to handle ships of almost unlimited size officially opened at Bell Bay. Comalco Ltd announced cessation of alumina production at Bell Bay; production of aluminium powder and paste to be doubled. Tasmania voted in line with other Australian States on prices and incomes referendums—'No' to both. Alginates (Australia) Ltd closed down its East Coast seaweed harvesting and processing operation. Legislative Council Select Committee recommendation supported the introduction of a T.A.B. system in Tasmania.

PUBLICATION OF TASMANIAN STATISTICS

HOW TO OBTAIN CURRENT PUBLICATIONS

General

The Tasmanian Office of the Australian Bureau of Statistics is located in the *Australian Government Centre at 188 Collins St, Hobart*. Requests for statistical publications can be made by calling at this address; by phoning, *Hobart 20 5011*; or by writing to the *Deputy Commonwealth Statistician, G.P.O. Box 66A, Hobart, 7001*.

Service to the public is not restricted to the distribution of publications. If no publication adequately covers the subject matter of the enquiry, then a special extraction of the data required may be undertaken if they are readily available from the basic records held in the office.

Historical

Before the appointment of the first Government Statistician in Tasmania in 1867, statistics had been published in the official 'Blue Books' compiled by the Colonial Secretary during the period 1822-1855, and in volumes entitled *Statistics of Tasmania* after self-government was granted.

By the *Commonwealth and State Statistical Agreement Act 1924*, the Tasmanian Parliament ratified an agreement for the establishment of an office in Tasmania of the Australian Bureau of Statistics, such office to meet the statistical needs of the State Government; provision was made for the Deputy Commonwealth Statistician, a Commonwealth officer, to hold at the discretion of the State Government, the title of (State) Government Statistician. The first officer appointed in this way was L. F. Giblin, M.C., D.S.O., who had previously been the State Government Statistician. (It was not till the late 1950s that similar arrangements were made in the other Australian States.)

Statistics from 1804

In the Archives Office of Tasmania, the following series are available:

- (i) Official 'Blue Books' for period 1822-1855.
- (ii) *Statistical Account of Van Diemen's Land or Tasmania, 1804 to 1854* compiled by Hugh M. Hull (Office of the Colonial Secretary).
- (iii) *Statistics of Tasmania*—annual publications from 1856 to 1922-23.
- (iv) *Statistics of the State of Tasmania*—annual publications commencing 1923-24 and continuing to 1967-68. (Copies of these volumes are held at the University Library, the State Library in Hobart, the Public Library in Launceston and the Tasmanian Office of the Commonwealth Bureau of Census and Statistics.) Although the bound volume entitled *Statistics of the State of Tasmania* has been discontinued as from the 1967-68 issue, the component parts are still published as separate bulletins.

Copies of publications listed from (ii) to (iv) inclusive, are available for inspection at the Tasmanian Office of the Bureau.

Current Publications of the Tasmanian Office

The Tasmanian Office of the Australian Bureau of Statistics is engaged in a continuous publication programme, the statistics appearing in either printed or mimeographed form.

In general, the mimeographed publications (which are obtainable free of charge) are issued with a view to disseminating statistical information as soon as possible after it becomes available. Printed publications contain information in very much greater detail but, because of the time consuming nature of manuscript preparation and the printing process, may be issued a year later than the period to which they refer. (The printed *Monthly Summary of Statistics* is an exception and the 'lag' is no more than about two months.)

Printed Publications

The following table sets out details of all printed publications issued by the Tasmanian Office:

Printed Publications Issued by the Tasmanian Office

Title	Frequency	For Issue in 1974	Price (Excluding Postage) (\$)
Tasmanian Year Book	Annual	1974	4.00
Monthly Summary of Statistics	Monthly	(a)	0.15
Pocket Year Book of Tasmania	Annual	1974	0.40
Demography	Annual	1972	0.60
Trade and Shipping	Annual	1973-74	0.40
Labour, Prices and Wages	Annual	1972-73	0.60
Primary Industries	Annual	1972-73	0.70
Social	Annual	1972	0.20
Statistical Summary (b)	Irregular	..	0.40

(a) Published one or two months after the most recent month for which figures are available.

(b) Latest issue, 1971-72.

Mimeographed Publications

The next table gives details of all mimeographs produced by the Tasmanian Office:

**Mimeographed Publications Issued by the Tasmanian Office
(Free of Charge)**

Title of Publication	Frequency
Bee Farming Statistics	Annual
Building and Co-operative Societies, Pension and Superannuation Schemes	Annual
Building Approvals	Monthly
Building Construction Statistics	Quarterly
Building Industry, 1973-74	Annual
Compendium of Municipal Statistics	Irregular
Crop Statistics	Annual
Dairy Industry Statistics	Annual
Farm Population, Employment, Machinery, Irrigation and Fertiliser Used	Annual
Fire, Marine and General Insurance	Annual
Fruit Statistics	Annual
Hop Production	Annual
Hospital Morbidity Statistics	Annual
Index of Tasmanian Towns	Irregular
Industrial Accident Statistics	Annual
Industrial Disputes	Annual
Livestock Statistics	Annual
Local Government Finance, 1971-72	Annual
Manufacturing Census (Preliminary) Results Analysed by Statistical Divisions	Annual
Manufacturing Establishments: Details of Operations	Annual
Meat Production	Annual
Motor Vehicle Registrations	Monthly
Population and Vital Statistics	Quarterly
Population in Local Government Areas	Annual
Potato Statistics	Annual
Poultry Statistics	Annual
Productive Activity: Miscellaneous Indicators	Monthly
Retail and Selected Service Establishments (Parts I, II, III)	Irregular
Road Traffic Accidents Involving Casualties	{ Quarterly
Sawmilling, Woodchipping, etc. Statistics	{ Annual
Tractors on Rural Holdings	{ Monthly
Trade (Overseas)	{ Triennial
Trade (Overseas and Interstate) by Sea and Air	{ Annual
Value of Primary Production	{ Annual
Wholesale Establishments (Economic Census)	{ Irregular
Wholesale Sales and Stocks of Wines and Spirits	{ Irregular
Wool Production Statistics	{ Annual

TASMANIAN STATISTICS IN CENTRAL OFFICE PUBLICATIONS**General**

Although publications of the Tasmanian Office of the Australian Bureau of Statistics make available statistics on many aspects of the State, there are some fields in which additional or more frequent information is available in publications of the Central Office.

How to Obtain Central Office Publications

Central Office printed publications may be *bought* direct from the Australian Government Publishing Service, Canberra and from the Tasmanian Office of the Australian Bureau of Statistics; they may also be ordered from leading booksellers in the principal centres. A standing order may be placed with the Australian Government Publishing Service, Canberra, with whom a credit account may be arranged.

In addition to printed publications for which a charge is made, there are other Central Office publications (mimeographed, etc.) which may be obtained free of charge from the Commonwealth Statistician, Canberra.

Subject Matter of Central Office Publications

The fields of statistical enquiry covered in Central Office publications are very wide and the best way to obtain a guide to the material available is to write to: *The Commonwealth Statistician, Canberra* and ask for *Publications of the Australian Bureau of Statistics*. Copies of this guide are also available at the Tasmanian Office of the Bureau. This free comprehensive guide lists the publications of the Central Office and of the State Offices; in addition, it contains a subject index.

Readers with interest in a particular field are invited to call at, or write to, the Tasmanian Office which is in a position to give advice on what publications are available.

INDEX OF SPECIAL ARTICLES

The articles are indexed to broad subject areas rather than to detailed items. Articles which appear in several editions have been indexed to the year, edition number and pages on which the main articles were first published.

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Wybalenna, The Tasmanian Aboriginal Settlement on Flinders Island	1973 (7), pp 10-13
Agent-General for Tasmania in London	1974 (8), pp 89, 90
Apple Industry, Economic Aspects	1973 (7), pp 236-248
Australian Broadcasting Commission	1972 (6), pp 399-404

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C

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